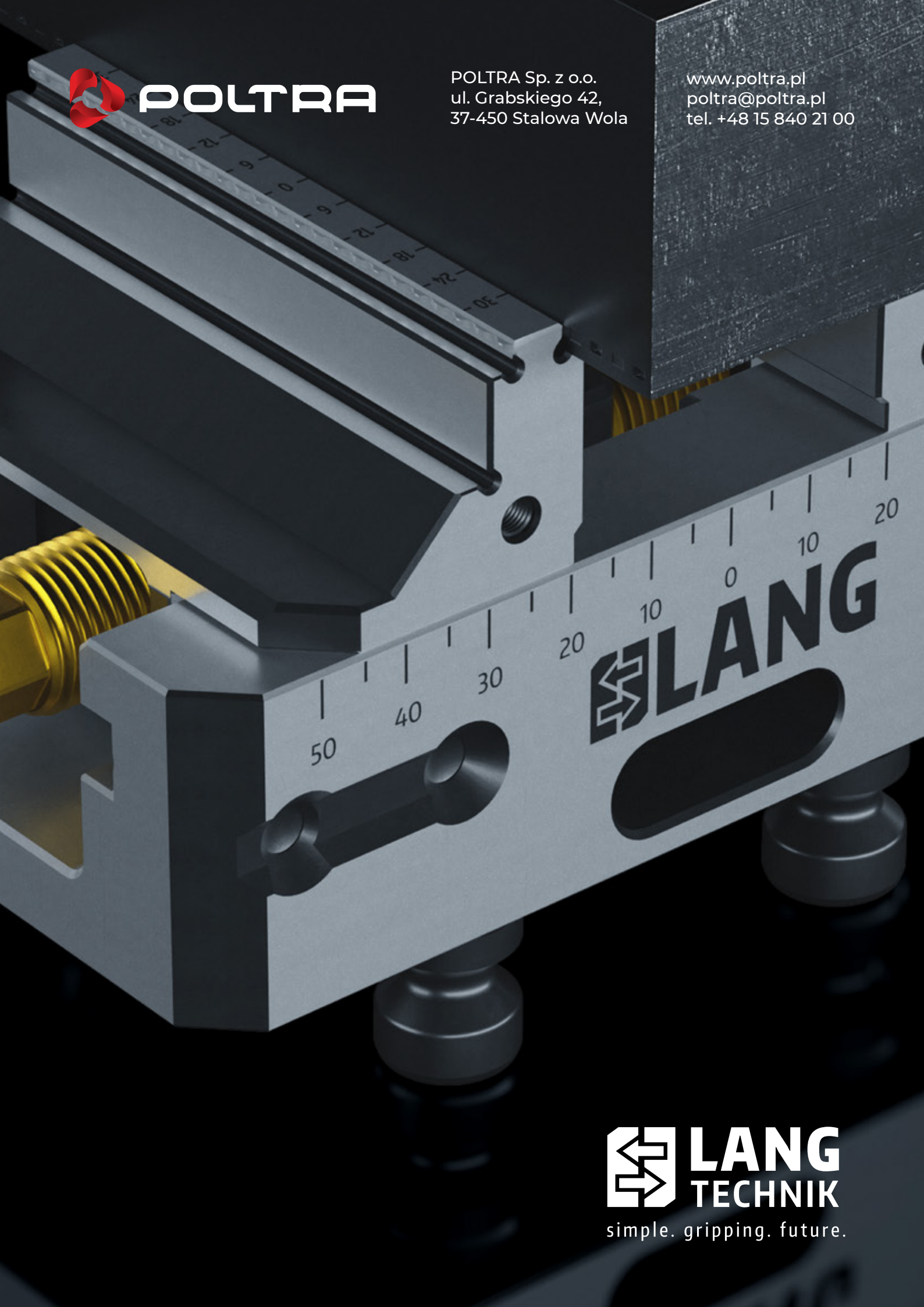
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LANG
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TECHNIK
simple. gripping. future.

Contents

Dear Customer,

We are proud to present you with our 2019/20 product catalogue!

While replacing the 2017/18 version of the catalogue, we look back on two very successful years. Success can also bring challenges. The high demand for our systems makes it necessary to produce faster and in larger quantities. In order to successfully overcome this challenge and meet the demands of our customers, we strive for continuous improvements in both production and in our infrastructure. Currently, the expansion of our production facility in Holzmaden by 3.000 m² is being planned and should be completed within the next few months.

Our company is experiencing strong growth not only internally, but also internationally. With over 40 exclusive foreign representatives and a US facility, we feel well positioned to help machining and manufacturing companies around the world optimise their manufacturing processes with our technologies. This high level of service and customer closeness would not be possible without the hard and motivated work of our partners. For this we express a big thank you.

In addition to new developments in the areas of zero-point clamping and workholding, this catalogue differs from previous ones, mainly in the style the products are presented. A great addition is our very first app, designed to make the catalogue interactive and even more user friendly.
More information about the LANG App and how to use it can be found on page 5.

We hope that you enjoy discovering new ways to positively influence your manufacturing not only for today, but also for the challenges of tomorrow.

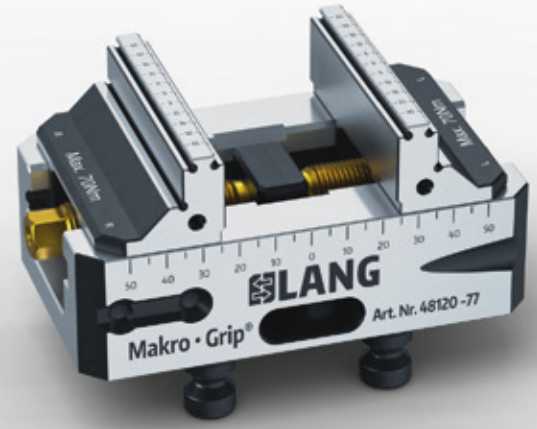
M. Lang G. Lang

Marianne Lang
CEO

Günter Lang
CEO

LANG Technik new products 2019

Well prepared for future tasks



Makro·Grip®
5-Axis-Vice - Generation 2018

New in 2018, 11 years after the initial introduction of the original 5-Axis Vice, are developments to our Makro·Grip® product line. Interaction between the clamping jaws and the vice body has been significantly improved. Along with a fresh, new look, the vice body has a reworked spindle centre-piece and new chip outlet. Read all about the new features on page 82 in the chapter titled "Makro·Grip® 5-Axis Vices / Raw Part Clamping".

Along with Conventional Workholding, these optimisations apply to all types of vices. Spare parts for existing vices are still available. These are listed on a double page at the end of the catalogue (p. 138, 139).

Preci·Point
Collet Chuck

The Preci·Point collet chuck advances our offerings of "Conventional Workholding". It is designed for the machining of Ø 6 – 34 mm round parts. To clamp material, commercially available ER 50 collets are used, eliminating the need for contour jaws, especially in small diameter ranges. Its slim design offers excellent ergonomic features and optimal accessibility during machining.

Experience Augmented Reality live:

1. **Scan the QR Code.** This leads you to our website www.lang-technik.de/app and from there to the App Store or Google Play.
2. **Install and start** the App on your device.
3. **Look for the symbols on the pages 5, 12, 15, 58, 59, 68, 69, 80, 83, 84 and 132** and scan the marked pages. Enjoy!

Interactive Catalogue with the new LANG App

LANG Technik has always been a technological leader in the industry. For metal-cutting production LANG's innovations have always been groundbreaking and have become the industry standard (stamping technology, the zero-point clamping system and the Clean·Tec cleaning fan).

We try to live up to this claim in our day-to-day work and strive to keep an eye on the trends of tomorrow. This applies not only to our manufacturing processes, but equally to the way in which our customers are allowed to gather information and learn about new technology in a simple and understandable format (that is also exciting and interesting).

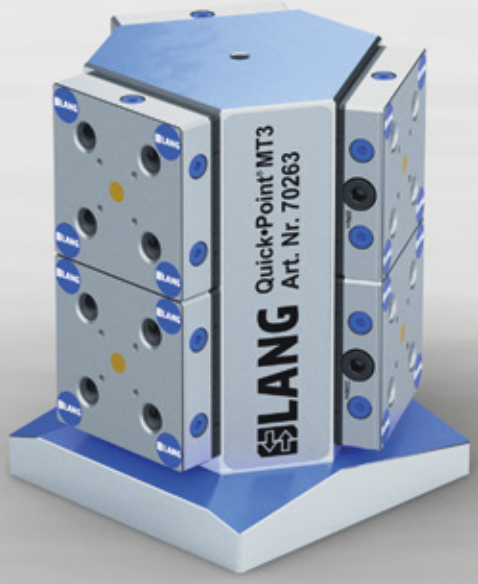
We happily introduce to you our first App. Among other things, this app makes it possible to experience the LANG catalogue in a new dimension, Augmented Reality. On selected pages, our technologies are described more vividly and in more detail.

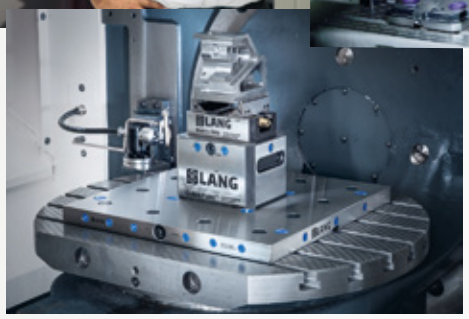
In order for the LANG catalogue to become more interactive and user friendly for you, please follow the instructions on the upper right side.

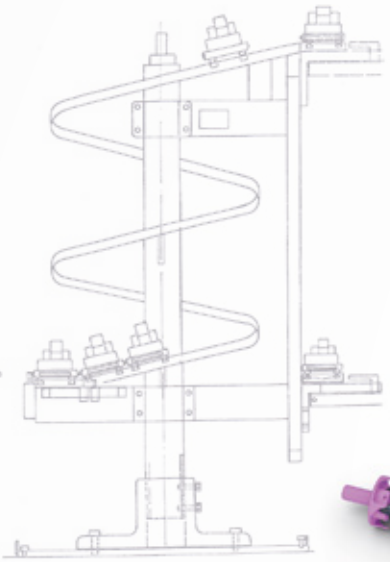
Quick·Point®

3- & 4-face Tombstone 52 / 3-face Pyramid 96

Based on our Quick·Tower for horizontal machining centres, a new series of clamping towers has been added. With the addition of the 3- and 4-face Tombstone 52 and the 3-face Pyramid 96, LANG Technik now offers multiple clamping systems for use in 5-axis machine tools. Since these clamping towers utilise the Quick·Point® Zero-Point System, the user benefits from optimised set-up times and can simultaneously use up to 8 clamping devices during machining, resulting in increased spindle run times.







CLEAN·TEC

CONSISTENT FURTHER DEVELOPMENTS

STAMPING UNIT

VARIO·TEC

simple – clever
innovative – pioneering
complete – flexible

AMONGST OTHERS, SERVING THE FOLLOWING INDUSTRIES

ENGINEERING

AEROSPACE

MEDICAL ENGINEERING

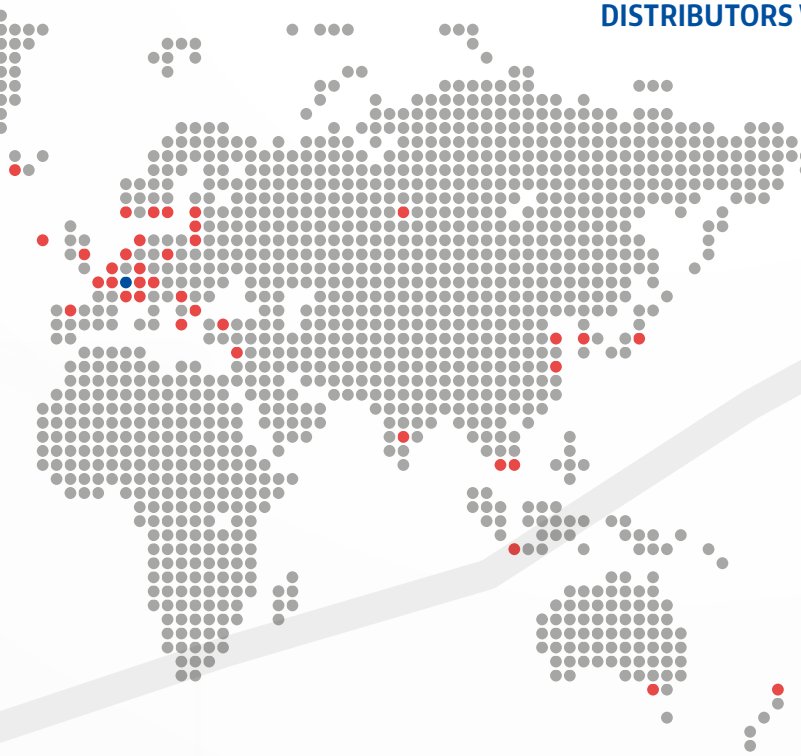
AUTOMOTIVE / MOTORSPORTS

LANG Technik

simple. gripping. future.

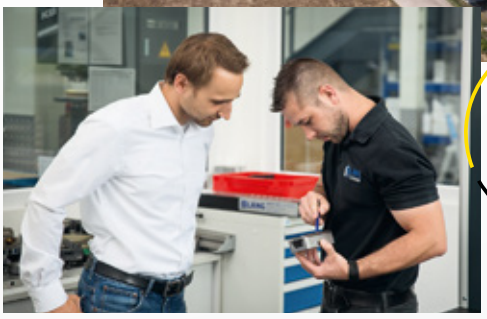
We develop simple, but innovative workholding and automation systems using our vast experience to help our customers stay **efficient** and **competitive** through **optimising manufacturing processes** and **maximising manufacturing capacities**.

MORE THAN 40 OFFICIAL DISTRIBUTORS WORLDWIDE



CONTINUOUS GROWTH

130 EMPLOYEES AT THREE DIFFERENT SITES →



MADE IN GERMANY

All from one source

Zero-Point Clamping, Workholding and Automation

LANG was the very first workholding manufacturer to offer solutions that influenced multiple production processes. Along with offering our customers innovative clamping solutions, in order to increase production output and efficiency, LANG also set the goal of optimising upstream and downstream processes for workpiece machining.

Today, LANG can look back on more than a decade of automated production, incorporating many years of experience into continuous process optimisations. With a perfectly coordinated, proven package of clamping technology, zero-point clamping systems, automation, and the patented stamping technology, we build an atmosphere that allows our customers to remain competitive and well prepared for the challenges of the future.

Quick·Point®
Zero-Point Clamping System from page 10

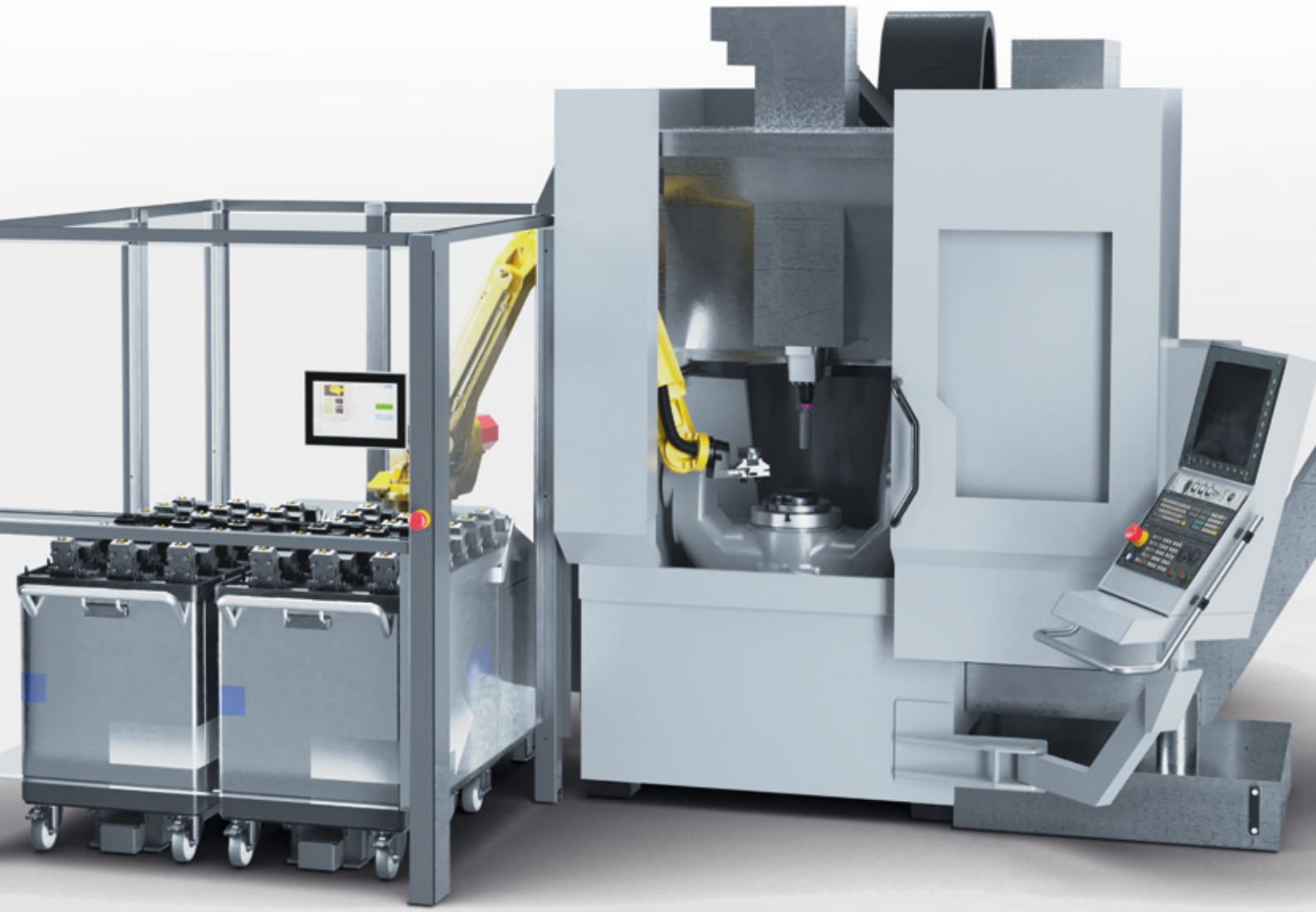
The modular Quick·Point® zero-point clamping system can be retrofitted to almost any machine table, making it a perfect solution for high speed changeovers of vices, fixtures and workpieces. Whether vertical or horizontal machining, 3-, 4- or 5-axis applications, there is a model that fits your needs. Its flexibility, high positioning accuracy and reliable, durable construction make it one of the best in its class and the industry benchmark in zero-point clamping.

Makro·Grip®
Stamping Technology from page 62

Makro·Grip® stamping technology ensures wear-free clamping of high-tensile material via our patented form-closure technology where other, conventional clamping devices reach their limits. Clamping scenarios that require high holding power, but where the potential for workpiece deformation exists, are easily and reliably mastered with pre-stamping the workpiece. The combination of pre-stamping and the Makro·Grip® 5-Axis Vice is the best solution for 5-sided machining and has no comparable product on the market.

Makro·Grip®
Raw Part Clamping / Conventional Workholding from page 78

From raw material to finished product – A solution that fits all of your challenging clamping tasks. Where maximum accessibility is required, the compact Makro·Grip® 5-Axis Vice is your choice for 5-sided machining. From shaped to round parts.In addition the modular clamping package is completed with multiple clamping systems for profile and round parts (Avanti, Profilo, Preci·Point), along with the Vario·Tec Vices for the machining of the 6th side.



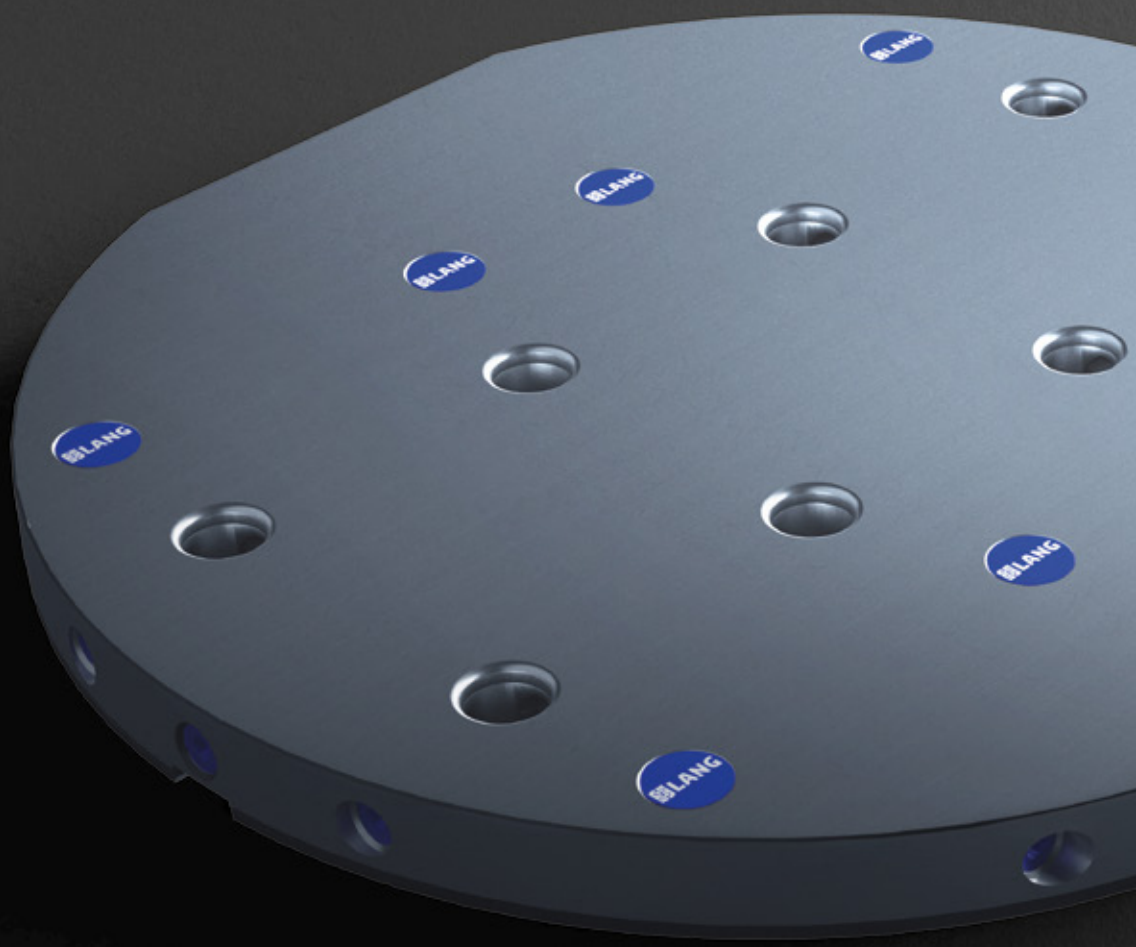
RoboTrex
Automation System

More efficiency, automatically! The innovative and patented trolley system of the RoboTrex automation creates flexibility and guarantees extended machining hours and machine tool utilisation, even during unmanned evening and weekend shifts. Thanks to the offline preparation of the trolleys, the RoboTrex is (re-) loaded quickly and without machine tool downtime. The trolley ensures maximum space utilisation with the patented, angled mounting of the vices.

ORIGINAL
CLEAN·TEC

Clean·Tec
Cleaning Fan from page 128

Clean·Tec is the practical, time saving solution for the removal of chips and coolant from the machine table, fixtures and/or workpieces before unloading. Used like any other tool from the tool changer, the blades are opened and closed with the adjustment of the spindle rotation.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ZERO-POINT CLAMPING SYSTEM

CONTENTS


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Quick·Point®
Zero-Point Clamping System

As an interface between the machine table and clamping device, Quick·Point® is offered in a particularly wide range of variations. Round, rectangular or square in shape, for single or multiple clamping, two different stud sizes and spacings (52 mm and 96 mm), Quick·Point® provides a solution for every application. It can be used universally in vertical and horizontal machining centres, on 3- and 5-axis tables and 4th axis rotary or trunnion systems.

The attachment of the zero-point plate to the machine table or faceplate is done easily through prefabricated hole patterns for common t-slot distances, bore patterns and bolt circles or individual, customized mounting options.

→ Reduction of Setup Time

High-precision exchange of clamping devices, fixtures and workpieces within seconds

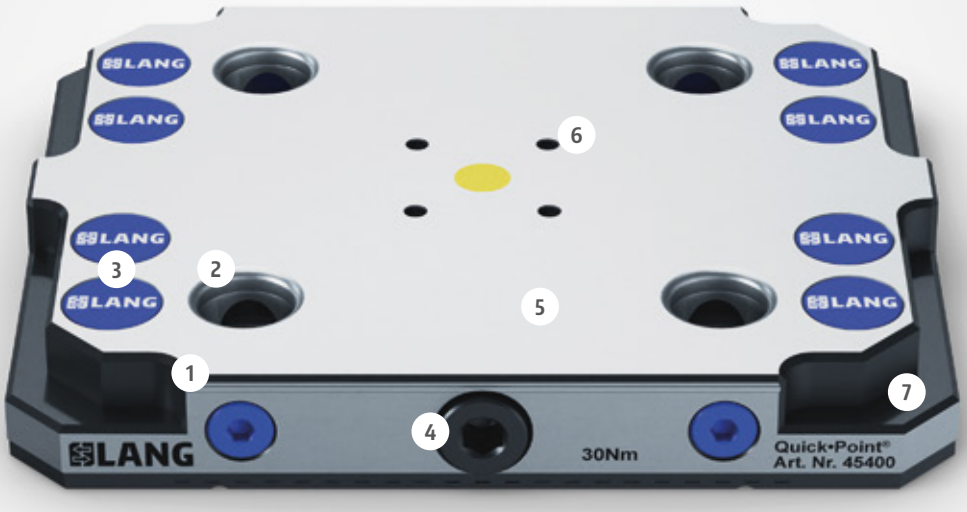
→ Modularity

Enormous variety of combinable zero-point plates, expandable at any time

→ Simplicity

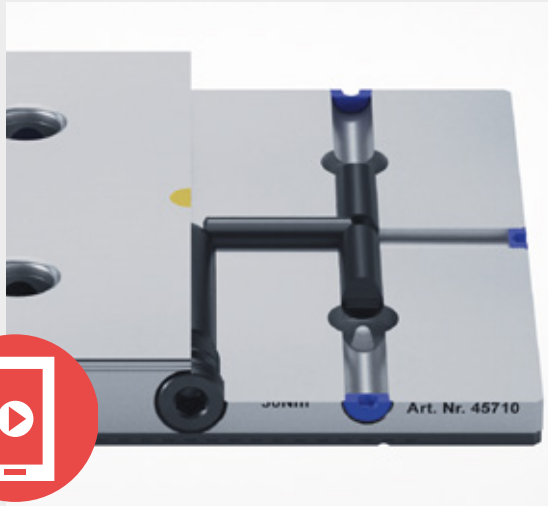
Mechanical clamping via a tightening screw or quick release

Quick·Point® **Technology**



1. With only 27 mm one of the lowest zero-point systems on the market
2. Highly precise with < 0.005 mm repeat accuracy
3. Cover discs for mounting bores
4. Robust mechanical clamping with one actuation screw or Quick-Lock fastener
5. Rigid, compact base plate made of case-hardened and ground steel
6. 4 × M5 threads used as positioning support for vices (added on some plates and options on others)
7. Clamping edge as one of a few options to mount the plate to the machine table

8. Ø12F5 fitting for concentrical alignment, centring studs now also available (page 57)
9. Coolant drainage
10. 20H7 keyways for axial alignment



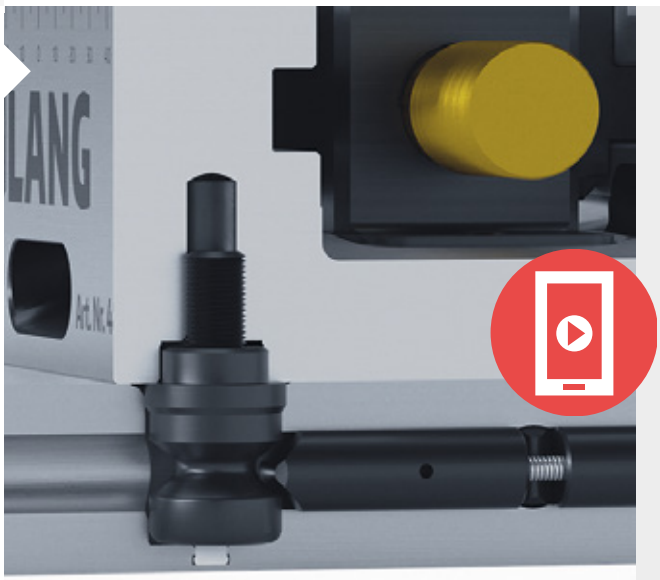
Robust, wear-free mechanism for highest longevity

By design Quick·Point® is a purely mechanical zero-point system. A patented rod system inside the plate guarantees a repeatability of less than 0.005 mm. Quick·Point® plates are actuated by one screw or the Quick-Lock device to ensure simple and easy operation.

Due to a very small number of wear-free parts the system is reliable and virtually maintenance free.

Holding force of up to 6.000 kg

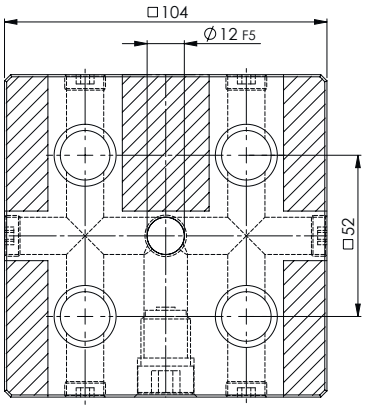
The mechanical clamping concept is very simple. The picture shows a cross-section of the Quick·Point® bore where the clamping studs are pulled down by lateral clamping rods. With an actuation torque of only 30 Nm (60 Nm for 4-fold grid plates 52 & 96) a holding force of up to 1.500 kg per clamping stud is achieved. As an example, this results in a holding force of 6.000 kg when clamping a Makro·Grip® 5-Axis Vice 125. If more clamping studs are used (e.g. using your own or bigger fixtures), the holding force is increased accordingly.



Flexibility has no limits!

The flexible Quick·Point® zero-point clamping system qualifies for a vast number of applications in vertical and horizontal machining centres and covers almost all clamping needs on 3-/5-axis tables or 4th axis rotary and trunnion systems. The modularity of the system allows for the expansion of existing Quick·Point® fixtures at any time and guarantees fast changeovers with the highest precision. Accessories such as Quick-Lock and/or risers can upgrade the usability and functionality enormously.

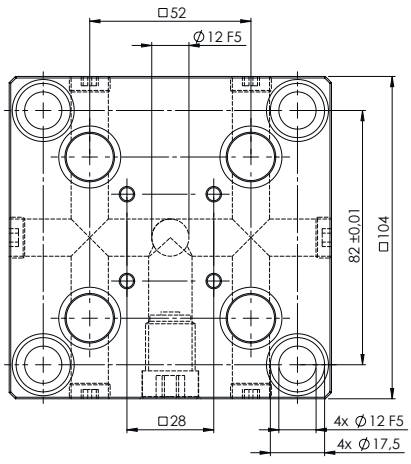
Quick·Point® **Single Plates**



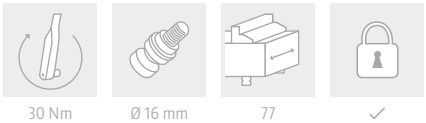
QUICK·POINT® 52, GRID PLATE
104 × 104 × 27 MM, WITHOUT MOUNTING BORES

ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45600	104 × 104 × 27 mm	2.0 kg	
45004	Set mounting bores according to customer's request		
45002	Set keyways according to customer's request		

Suitable Quick-Lock: Item No. 44552 (page 54)

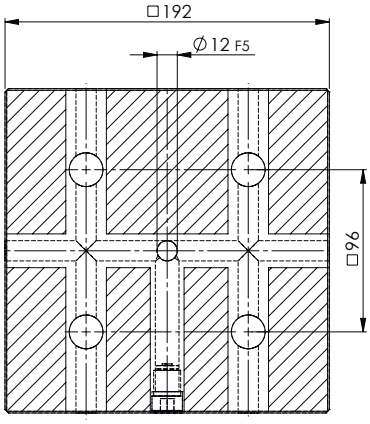


QUICK·POINT® 52, GRID PLATE
104 × 104 × 27 MM, WITH MOUNTING BORES FOR QUICK·TOWER



ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
75600	104 × 104 × 27 mm	82 × 82 mm	1.8 kg	

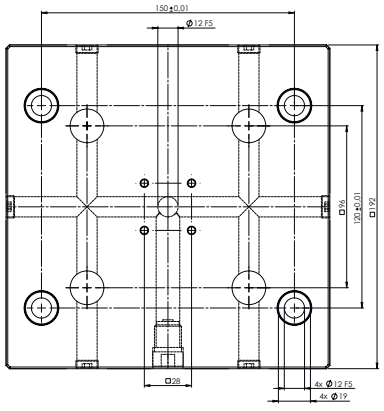
This Grid Plate can also be found on page 42 & 48.
Suitable Quick-Lock: Item No. 44552 (page 54)



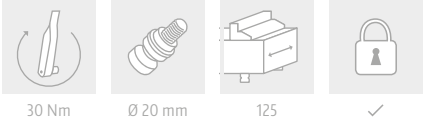
QUICK·POINT® 96, GRID PLATE
192 × 192 × 27 MM, WITHOUT MOUNTING BORES

ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45710	192 × 192 × 27 mm	7.2 kg	
45004	Set mounting bores according to customer's request		
45002	Set keyways according to customer's request		

Suitable Quick-Lock: Item No. 44596 (page 54)



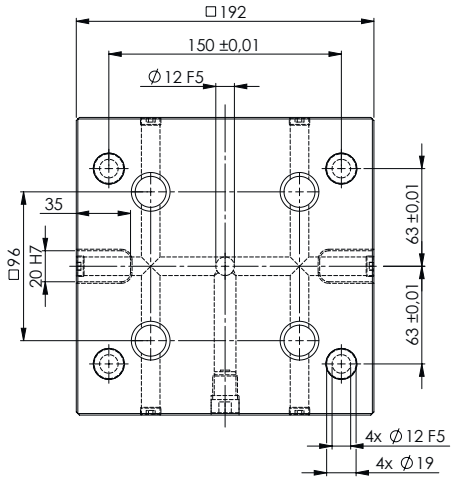
QUICK·POINT® 96, GRID PLATE
192 × 192 × 27 MM, WITH MOUNTING BORES FOR QUICK·TOWER



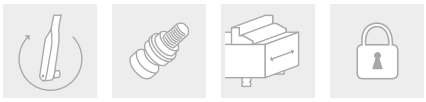
ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
75710	192 × 192 × 27 mm	150 × 120 mm	7.0 kg	

This Grid Plate can also be found on page 49.
Suitable Quick-Lock: Item No. 44596 (page 54)

Quick·Point® **Single Plates**



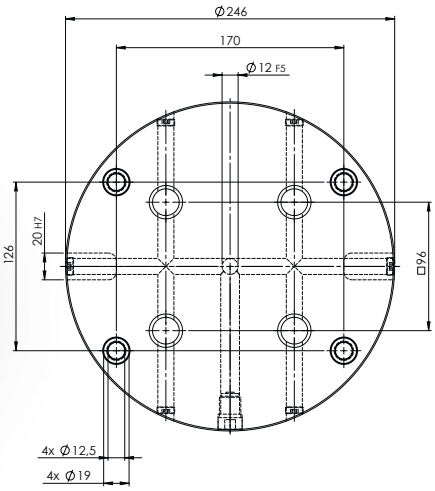
QUICK·POINT® 96, GRID PLATE
192 × 192 × 27 MM, WITH MOUNTING BORES FOR 63 MM T-SLOT DISTANCE



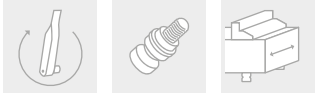
ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
45763	192 × 192 × 27 mm	for 63 mm t-slot distance	7.0 kg	

Suitable Quick-Lock: Item No. 44596 (page 54)

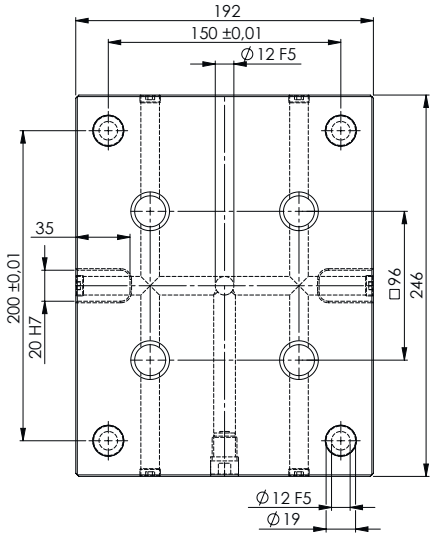
NEW



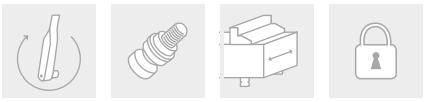
QUICK·POINT® 96, ROUND PLATE
Ø 246 × 27 MM, WITH MOUNTING BORES FOR 63 MM T-SLOT DISTANCE



ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
45863	Ø 246 × 27 mm	for 63 mm t-slot distance	9.3 kg	

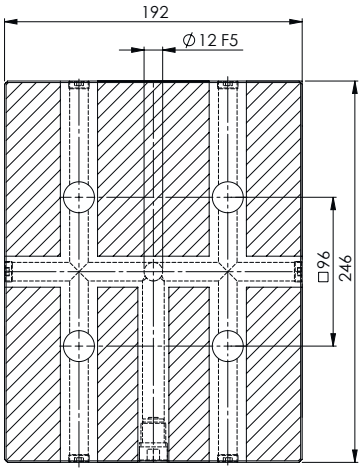


QUICK•POINT® 96, EXTENDED GRID PLATE
246 × 192 × 27 MM, WITH MOUNTING BORES FOR 100 MM T-SLOT DISTANCE



ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
45715	246 × 192 × 27 mm	for 100 mm t-slot distance	9.2 kg	

Suitable Quick-Lock: Item No. 44596 (page 54)

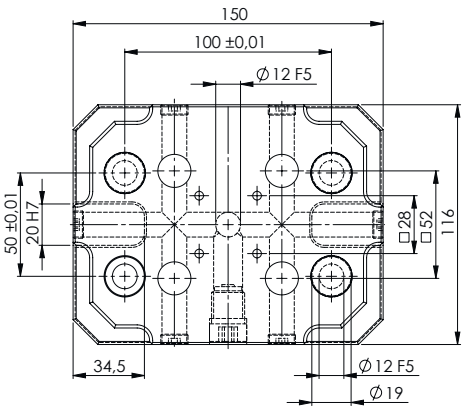


QUICK•POINT® 96, EXTENDED GRID PLATE
246 × 192 × 27 MM, WITHOUT MOUNTING BORES

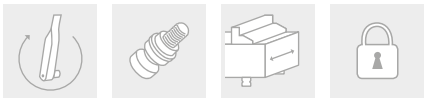
ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45716	246 × 192 × 27 mm	9.4 kg	
45004	Set mounting bores according to customer's request		
45002	Set keyways according to customer's request		

Suitable Quick-Lock: Item No. 44596 (page 54)

Quick·Point® **Single Plates**

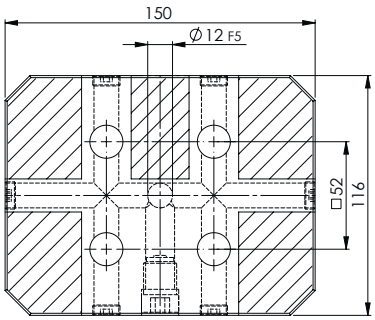


QUICK·POINT® 52, RECTANGULAR PLATE
150 × 116 × 27 MM, WITH CLAMPING EDGE & MOUNTING BORES



ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
45150	150 × 116 × 27 mm	100 × 50 mm	2.9 kg	

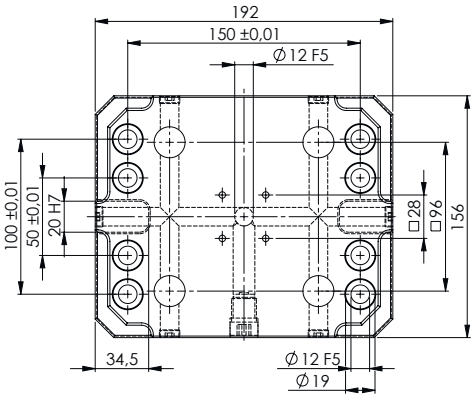
Suitable Quick-Lock: Item No. 44552 (page 54)



QUICK·POINT® 52, RECTANGULAR PLATE
150 × 116 × 27 MM, WITHOUT CLAMPING EDGE & MOUNTING BORES

ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45151	150 × 116 × 27 mm	3.4 kg	
45004	Set mounting bores according to customer's request		
45002	Set keyways according to customer's request		

Suitable Quick-Lock: Item No. 44552 (page 54)

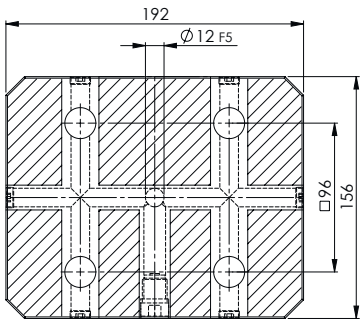


QUICK·POINT® 96, RECTANGULAR PLATE
192 × 156 × 27 MM, WITH CLAMPING EDGE & MOUNTING BORES

30 Nm | Ø 20 mm | 125 | ✓

ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
45400	192 × 156 × 27 mm	150 × 100 / 50 mm	5.5 kg	

Suitable Quick-Lock: Item No. 44596 (page 54)



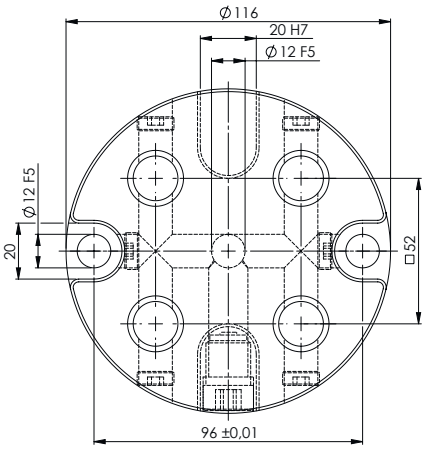
QUICK·POINT® 96, RECTANGULAR PLATE
192 × 156 × 27 MM, WITHOUT CLAMPING EDGE & MOUNTING BORES

30 Nm | Ø 20 mm | 125 | ✓ | ✓

ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45401	192 × 156 × 27 mm	6.0 kg	
45004	Set mounting bores according to customer's request		
45002	Set keyways according to customer's request		

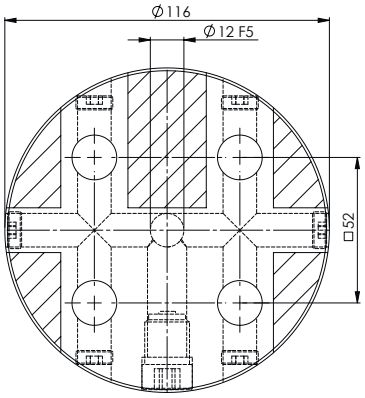
Suitable Quick-Lock: Item No. 44596 (page 54)

Quick·Point® **Single Plates**

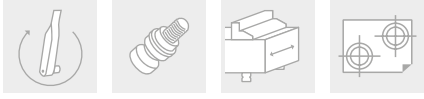


QUICK·POINT® 52, ROUND PLATE
Ø 116 × 27 MM

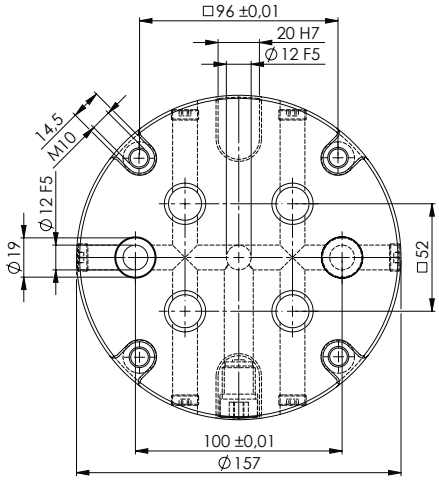
ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
45750	Ø 116 × 27 mm	96 mm distance	1.9 kg	



QUICK·POINT® 52, ROUND PLATE
Ø 116 × 27 MM, WITHOUT MOUNTING BORES

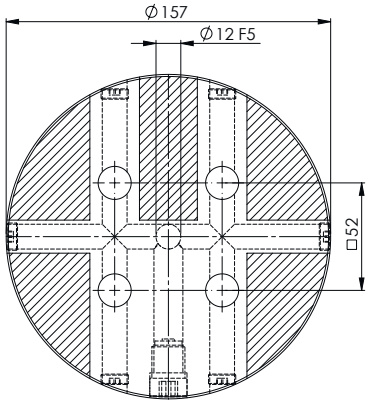


ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45751	Ø 116 × 27 mm	2.1 kg	
45004	Set mounting bores according to customer's request		
45002	Set keyways according to customer's request		

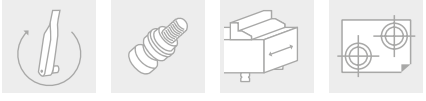


QUICK•POINT® 52, ROUND PLATE
Ø 157 × 27 MM

ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
45900	Ø 157 × 27 mm	100 mm distance	3.5 kg	

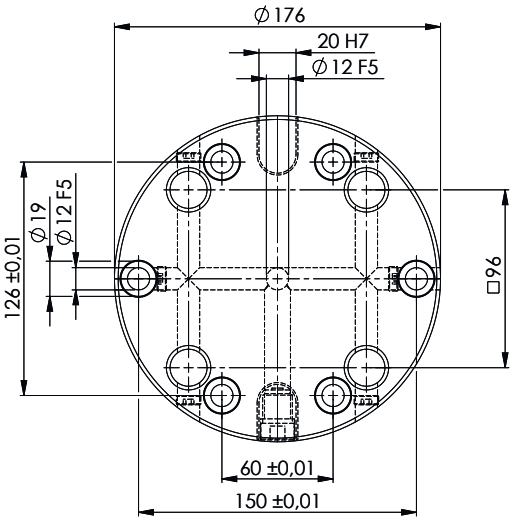


QUICK•POINT® 52, ROUND PLATE
Ø 157 × 27 MM, WITHOUT MOUNTING BORES



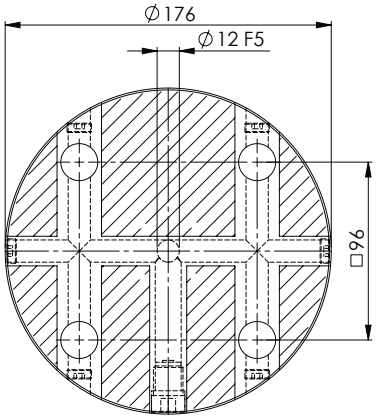
ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45901	Ø 157 × 27 mm	3.8 kg	
45004	Set mounting bores according to customer's request		
45002	Set keyways according to customer's request		

Quick·Point® **Single Plates**

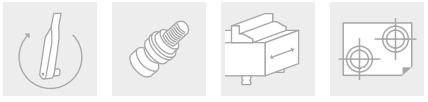


QUICK·POINT® 96, ROUND PLATE
Ø 176 × 27 MM

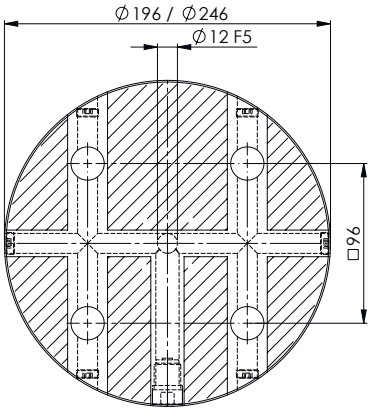
ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
45800	Ø 176 × 27 mm	for 63 mm t-slot distance & 150 mm distance	4.7 kg	



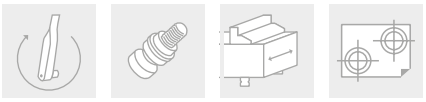
QUICK·POINT® 96, ROUND PLATE
Ø 176 × 27 MM, WITHOUT MOUNTING BORES



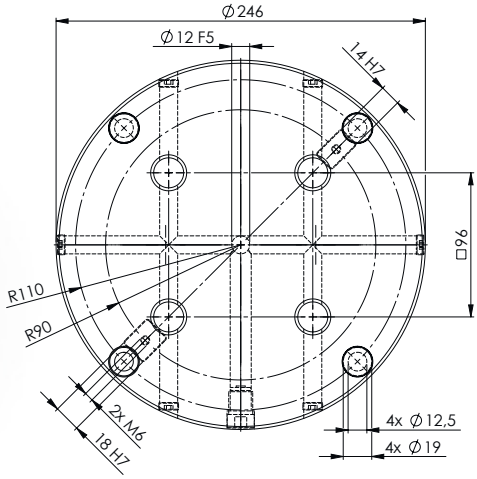
ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45801	Ø 176 × 27 mm	4.8 kg	
45004	Set mounting bores according to customer's request		
45002	Set keyways according to customer's request		



QUICK·POINT® 96, ROUND PLATES
Ø 196 / 246 × 27 MM, WITHOUT MOUNTING BORES



ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45820	Ø 196 × 27 mm	6.0 kg	
45840	Ø 246 × 27 mm	9.5 kg	
45004	Set mounting bores according to customer's request		
45002	Set keyways according to customer's request		

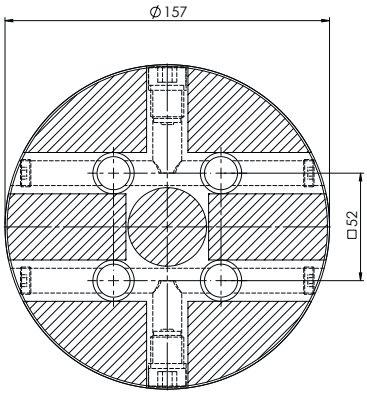


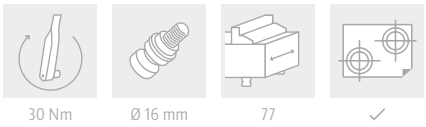
QUICK·POINT® 96, ROUND PLATE
Ø 246 × 27 MM, WITH MOUNTING BORES FOR TABLES WITH 90° GROOVES

ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
45890	Ø 246 × 27 mm	4 × 90° / Radius 110 mm	9.3 kg	

Suitable slot keys: Item No. 452214 / 442218 (page 57)

Quick·Point® **Single Plates for individual centre bore**

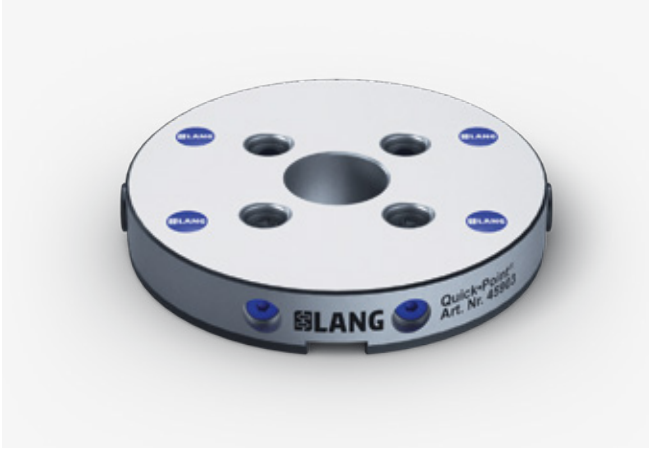




QUICK·POINT® 52, ROUND PLATE
Ø 157 × 27 MM, FOR INDIVIDUAL CENTRE BORE

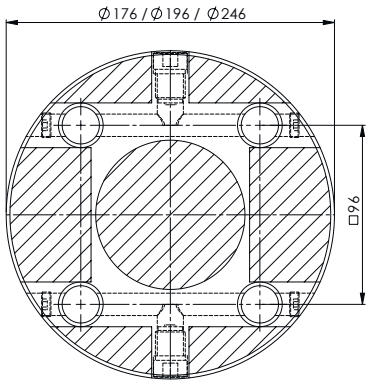
ITEM NO.	DIMENSIONS	MAX. Ø CENTRE BORE	WEIGHT	PRICE
45903	Ø 157 × 27 mm	38 mm	3.7 kg	
45004	Set mounting bores according to customer's request			
45002	Set keyways according to customer's request			
45009	Set centre bore according to customer's request			

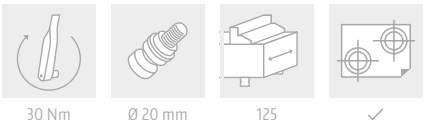
Possible Modification of Quick·Point® Plate 45903



- 1 × Centre bore Ø 38 mm
- 1 × Keyway 20H7
- 4 × Mounting bores for M8 screws, incl. step for Ø 15 mm cover discs, for machine tables with 6 × 60° grooves

A centre bore with individually selectable diameter and tolerance provides the option for access to rotary joints.

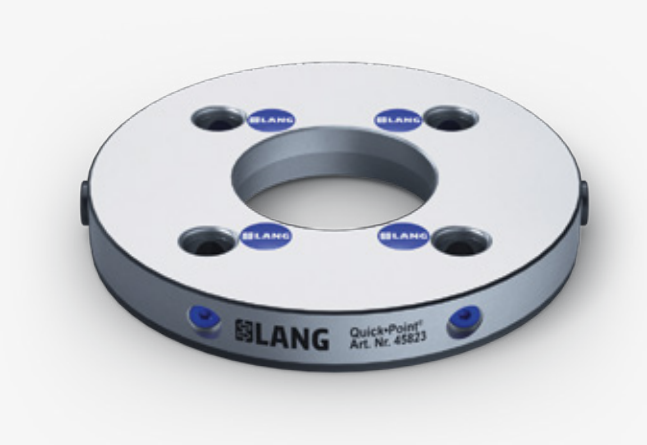




QUICK•POINT® 96, ROUND PLATES
Ø 176 / 196 / 246 × 27 MM, FOR INDIVIDUAL CENTRE BORE

ITEM NO.	DIMENSIONS	MAX. Ø CENTRE BORE	WEIGHT	PRICE
45803	Ø 176 × 27 mm	80 mm	4.8 kg	
45823	Ø 196 × 27 mm	80 mm	6.0 kg	
45843	Ø 246 × 27 mm	80 mm	9.5 kg	
45004	Set mounting bores according to customer's request			
45002	Set keyways according to customer's request			
45009	Set centre bore according to customer's request			

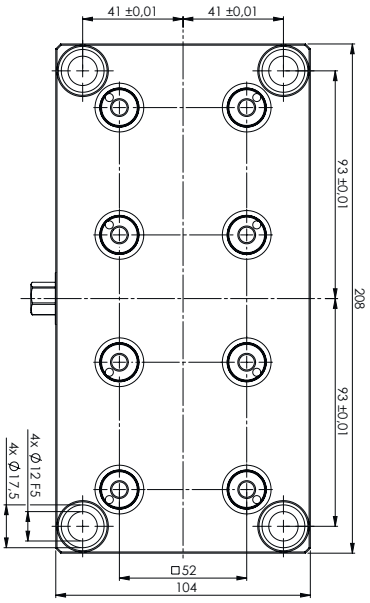
Possible Modification of Quick•Point® Plate 45823

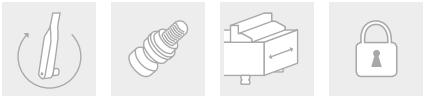


- 1 × Centre bore Ø 80 mm
- 1 × 130H6 tapered fitting
- 4 × Mounting bores for M12 screws, incl. step for Ø 20 mm cover discs, for machine tables with 6 × 60° grooves

Quick·Point® **Multi Plates**

NEW



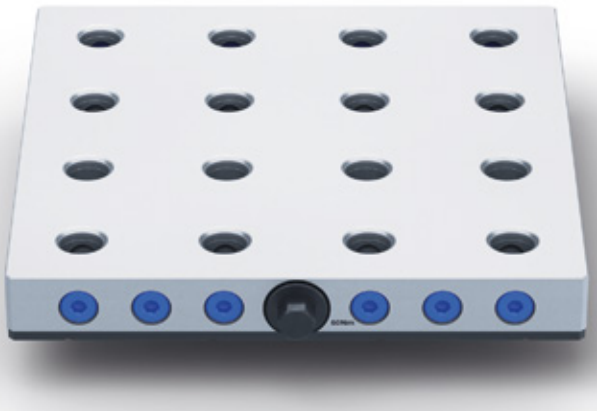


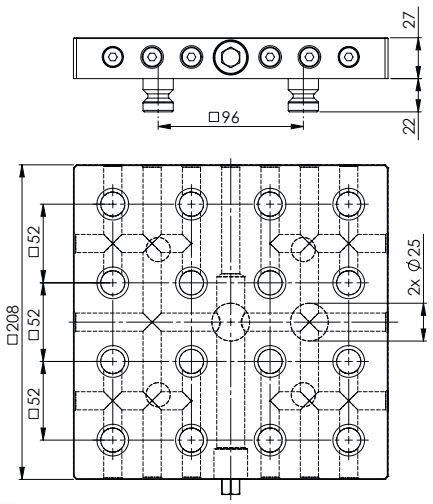
30 Nm | Ø 16 mm | 77 | ✓

QUICK·POINT® 52, 2-FOLD GRID PLATE
208 × 104 × 27 MM

ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
45621	208 × 104 × 27 mm	186 × 82 mm	4.0 kg	

Suitable Quick-Lock: Item No. 45252 (page 54)



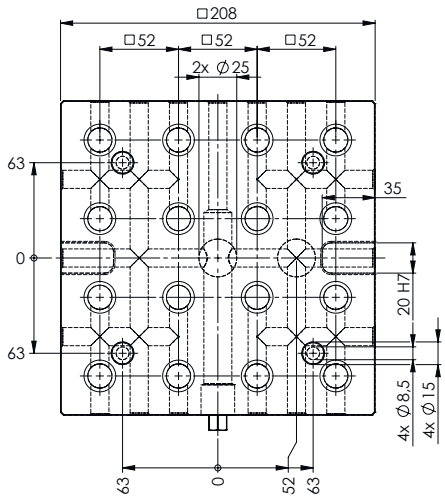


QUICK·POINT® 52, 4-FOLD GRID PLATE
208 × 208 × 27 MM, WITHOUT MOUNTING BORES

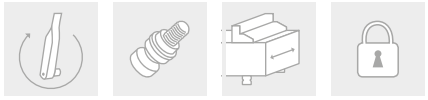
60 Nm | Ø 16 mm | 77 | ✓ | ✓

ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45640	208 × 208 × 27 mm	8.2 kg	
45644	Set mounting bores according to customer's request		
45642	Set keyways according to customer's request		

Included in delivery: 4 × Quick·Point clamping studs Ø 20 mm, for adapting the plate to the Quick·Point® 96 system
Suitable Quick-Lock: Item No. 45452 (page 54)



QUICK·POINT® 52, 4-FOLD GRID PLATE
208 × 208 × 27 MM, WITH MOUNTING BORES FOR 63 MM T-SLOT DISTANCE

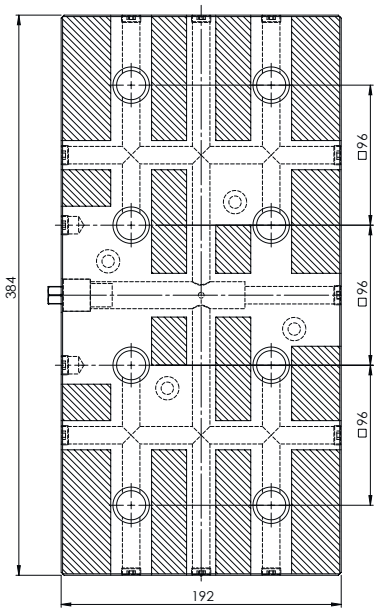


60 Nm | Ø 16 mm | 77 | ✓

ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
45641	208 × 208 × 27 mm	for 63 mm t-slot distance	8.0 kg	

Suitable Quick-Lock: Item No. 45452 (page 54)

Quick·Point® **Multi Plates**

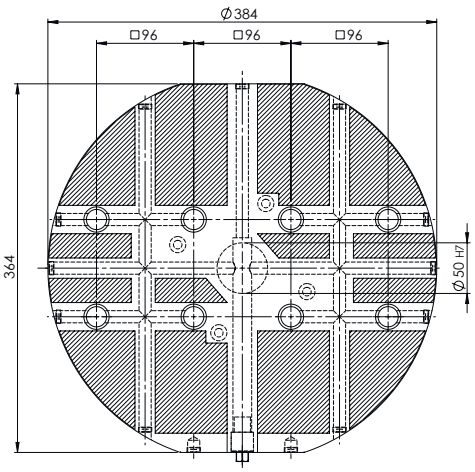


QUICK·POINT® 96, 2-FOLD GRID PLATE
384 × 192 × 27 MM, WITHOUT MOUNTING BORES

ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45720	384 × 192 × 27 mm	14.7 kg	
45024	Set mounting bores according to customer's request		
45022	Set keyways according to customer's request		

Suitable Quick-Lock: Item No. 45296 (page 54)

NEW

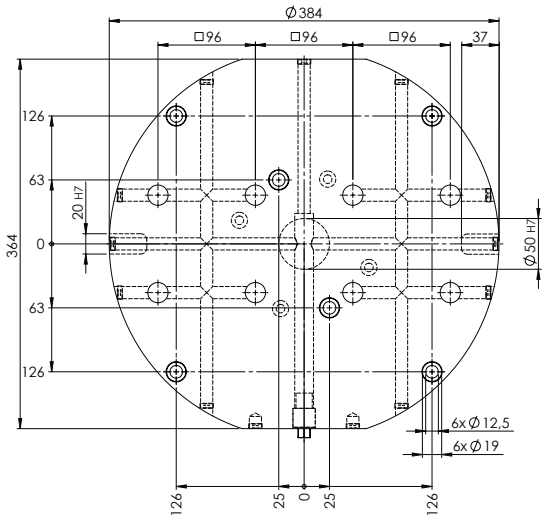


QUICK·POINT® 96, 2-FOLD GRID PLATE, ROUND
Ø 384 × 27 MM, WITHOUT MOUNTING BORES

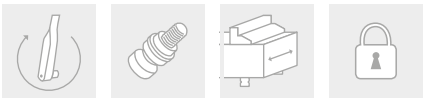
ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45962	Ø 384 × 27 mm	22.8 kg	
45044	Set mounting bores according to customer's request		
45042	Set keyways according to customer's request		

Suitable Quick-Lock: Item No. 45996 (page 54)

NEW



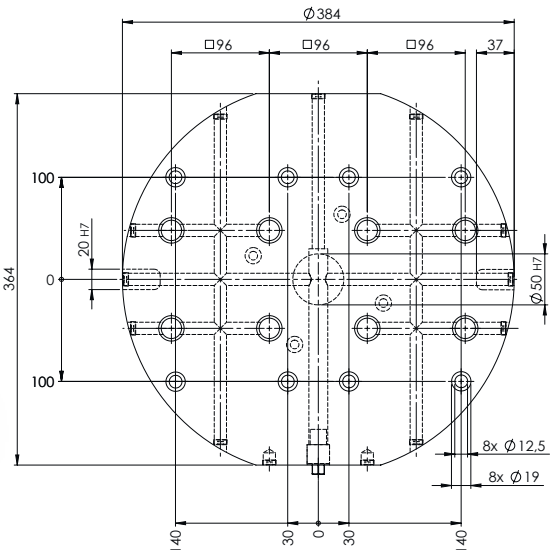
QUICK·POINT® 96, 2-FOLD GRID PLATE, ROUND
Ø 384 × 27 MM, WITH MOUNTING BORES FOR 63 MM T-SLOT DISTANCE



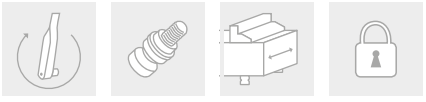
ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
45963	Ø 384 × 27 mm	for 63 mm t-slot distance	22.4 kg	

Suitable Quick-Lock: Item No. 45996 (page 54)

NEW



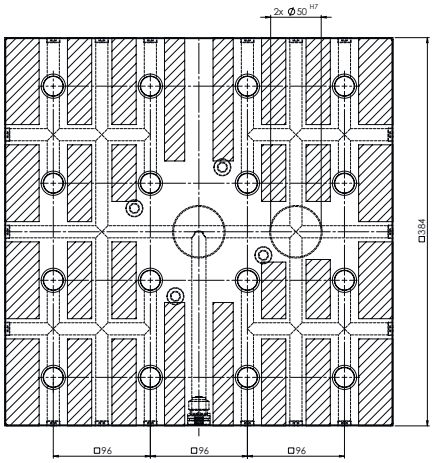
QUICK·POINT® 96, 2-FOLD GRID PLATE, ROUND
Ø 384 × 27 MM, WITH MOUNTING BORES FOR 100 MM T-SLOT DISTANCE



ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
45964	Ø 384 × 27 mm	for 100 mm t-slot distance	22.4 kg	

Suitable Quick-Lock: Item No. 45996 (page 54)

Quick·Point® **Multi Plates**

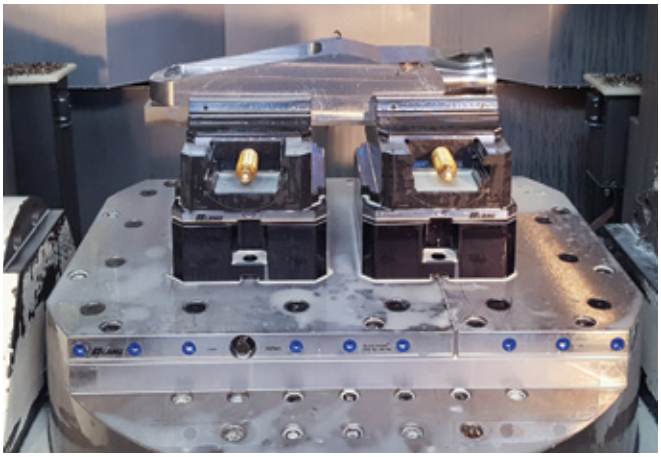


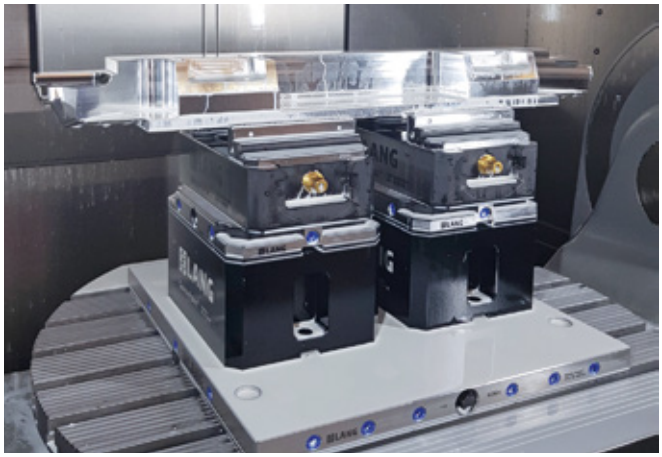
QUICK·POINT® 96, 4-FOLD GRID PLATE
384 × 384 × 27 MM, WITHOUT MOUNTING BORES

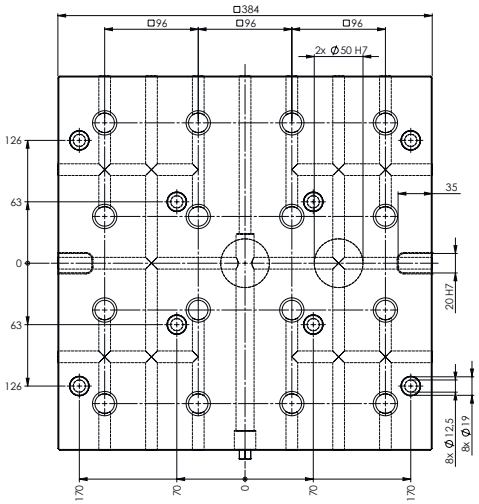
ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45740	384 × 384 × 27 mm	29.7 kg	
45044	Set mounting bores according to customer's request		
45042	Set keyways according to customer's request		

Suitable Quick-Lock: Item No. 45496 (page 54)

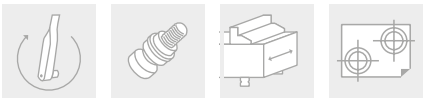
Applications





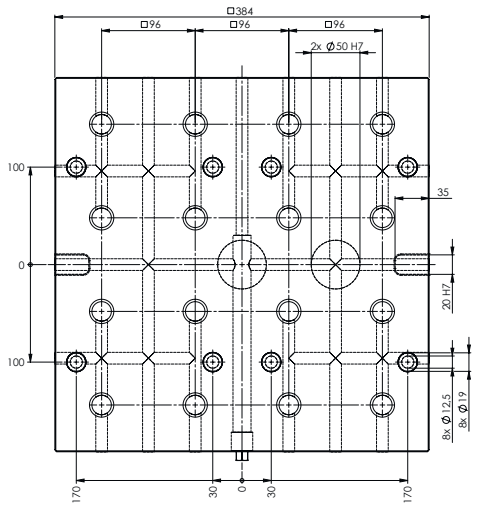


QUICK·POINT® 96 4-FOLD GRID PLATE
384 × 384 × 27 MM, WITH MOUNTING BORES FOR 63 MM T-SLOT DISTANCE

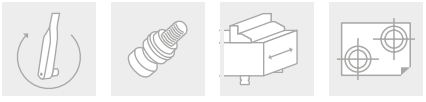


ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
45741	384 × 384 × 27 mm	for 63 mm t-slot distance	29.2 kg	

Suitable Quick-Lock: Item No. 45496 (page 54)



QUICK·POINT® 96, 4-FOLD GRID PLATE
384 × 384 × 27 MM, WITH MOUNTING BORES FOR 100 MM T-SLOT DISTANCE

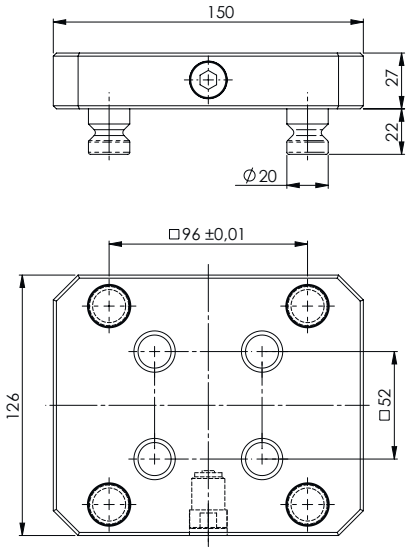


ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
45742	384 × 384 × 27 mm	for 100 mm t-slot distance	29.2 kg	

Suitable Quick-Lock: Item No. 45496 (page 54)

Quick·Point® **Adaptor Plates**

Utilise the modularity of the zero-point clamping system by quickly reducing from 96 mm to 52 mm stud spacings with these adaptor plates.



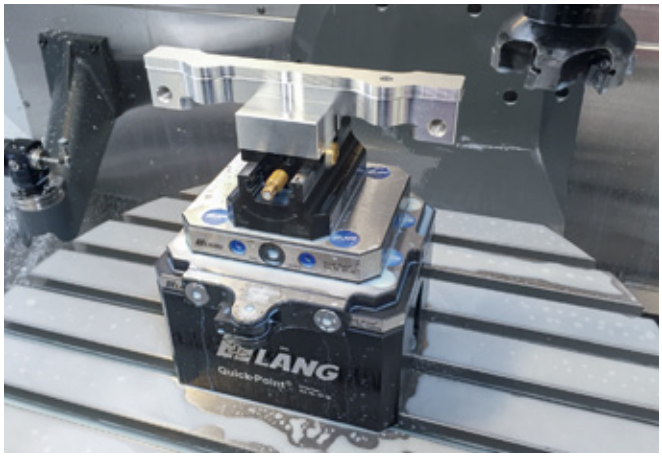
QUICK·POINT® ADAPTOR PLATE 150 × 126 × 27 MM

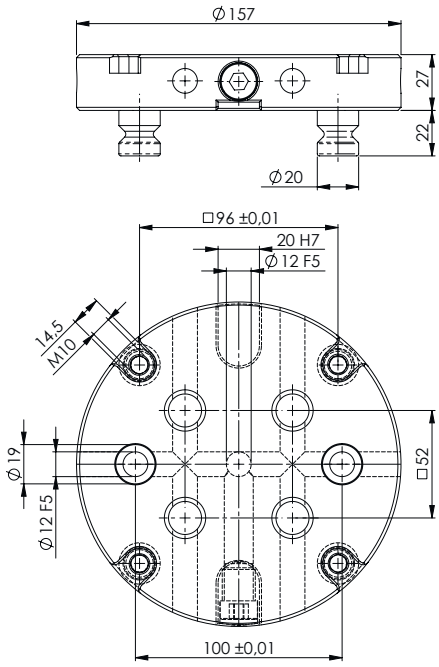
Upper interface:				Lower interface:
30 Nm	Ø 16 mm	77	✓	96

ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45160	150 × 126 × 27 mm	3.4 kg	

Suitable Quick-Lock: Item No. 44552 (page 54)

Applications





Upper interface:

30 Nm

Ø 16 mm

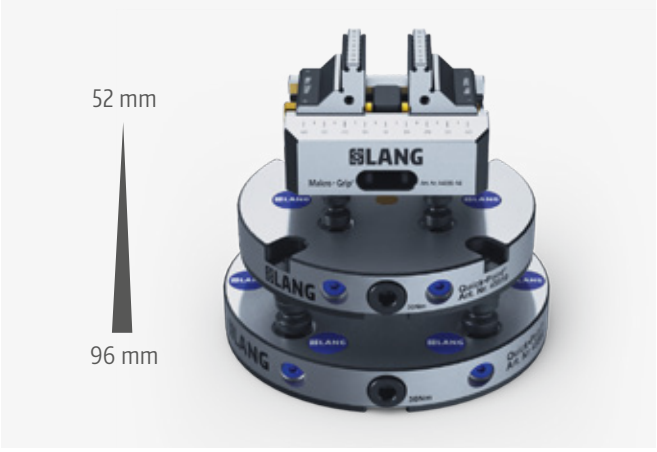
77

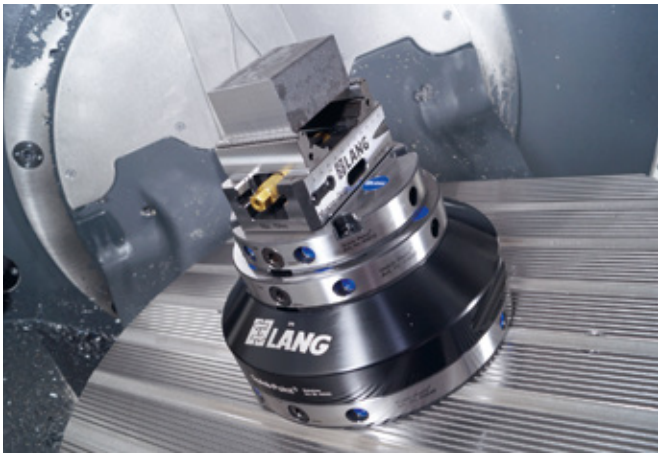
Lower interface:

96

QUICK·POINT® ADAPTOR PLATE, ROUND
Ø 157 × 27 MM

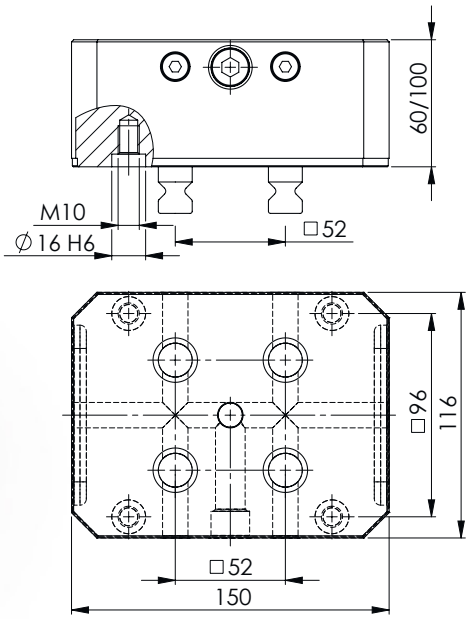
ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45910	Ø 157 × 27 mm	3.7 kg	

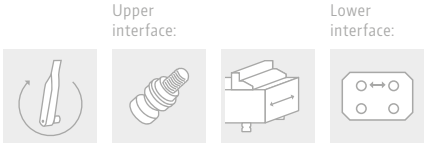




Quick·Point® **5-Axis Risers**

Increase accessibility to workpieces on 5-axis machine tools with these risers.
With no additional interface between the solid riser and the vice, improved rigidity is provided.





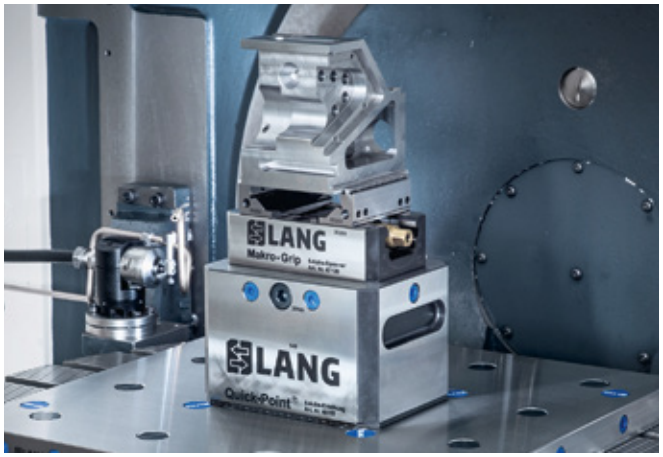
QUICK·POINT® 52, 5-AXIS RISER

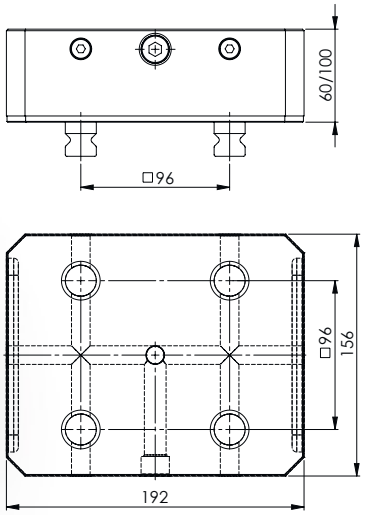
ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45156	150 × 116 × 60 mm	6.1 kg	
45157	150 × 116 × 100 mm	10.0 kg	

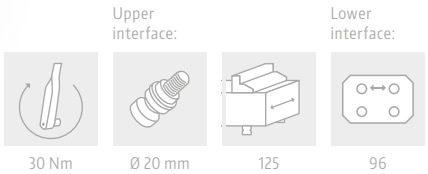
Included: 4 × Quick·Point® clamping studs Ø 16 mm.
Suitable Quick-Lock: Item No. 44552 (page 54).

Applications

This riser also features bores for Ø 20 mm clamping studs to use it as an adaptor for the 96 mm grid system.



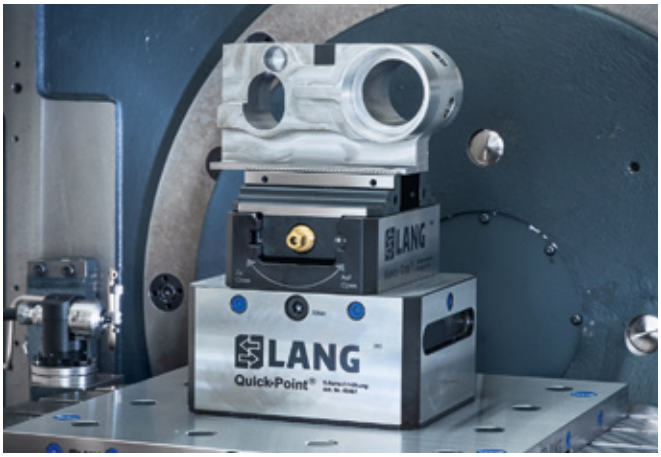




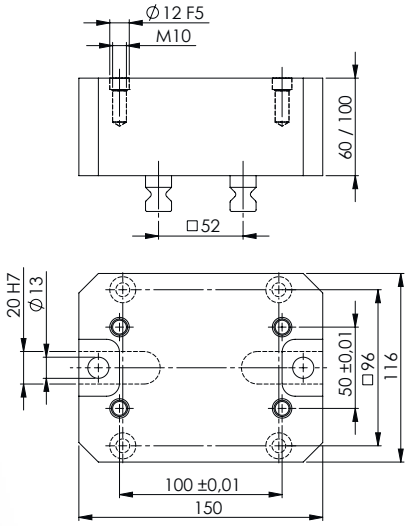
QUICK•POINT® 96, 5-AXIS RISER

ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45406	192 × 156 × 60 mm	11.2 kg	
45407	192 × 156 × 100 mm	18.1 kg	

Included: 4 × Quick•Point® clamping studs Ø 20 mm.
Suitable Quick-Lock: Item No. 44596 (page 54).



Quick·Point® **Risers**



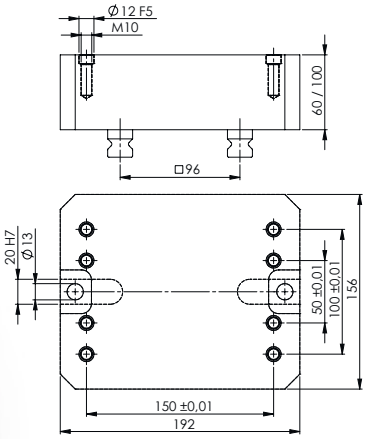
Upper interface: Lower interface:

Ø 16 mm 77 52/96

QUICK·POINT® 52, RISER

ITEM NO.	DIMENSIONS	WEIGHT	PRICE
43060	150 × 116 × 60 mm	2.5 kg	
43100	150 × 116 × 100 mm	4.2 kg	

Suitable for Quick·Point® Plate, Item No. 45150.
Included: 4 × Quick·Point® clamping studs Ø 16 mm, 4 screws M 10 + 2 bushings Ø 12 × 12 mm (Item No. 45000-09).
This riser also features bores for Ø 20 mm clamping studs to use it as an adaptor for the 96 mm grid system.



Upper interface: Lower interface:

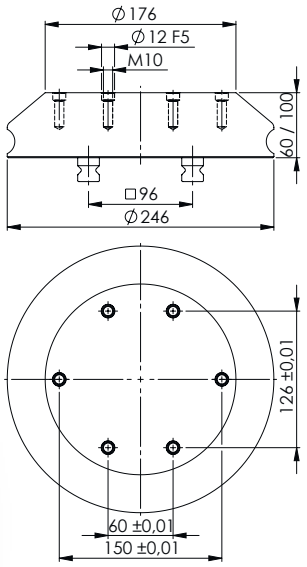
Ø 20 mm 125 96

QUICK·POINT® 96, RISER

ITEM NO.	DIMENSIONS	WEIGHT	PRICE
44060	192 × 156 × 60 mm	4.7 kg	
44100	192 × 156 × 100 mm	7.9 kg	

Suitable for Quick·Point® Plate, Item No. 45400.
Included: 4 × Quick·Point® clamping studs Ø 20 mm, 4 screws M 10 + 2 bushings Ø 12 × 12 mm (Item No. 45000-09).

Increase accessibility to workpieces on 5-axis machine tools. The coated aluminium body can either be mounted directly on the machine table or by a Quick·Point® plate. The lateral recess can be used for fixation, the alignment is done with 20H7 keyways. Alternatively it can be clamped onto zero-point clamping systems with 4 clamping studs.



Upper interface: Lower interface:

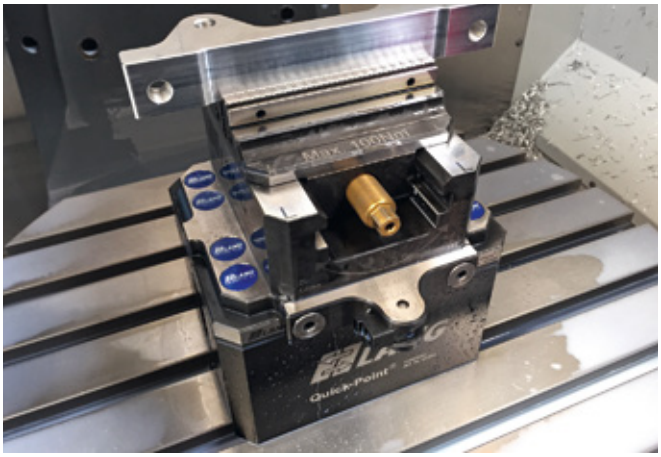
Ø 20 mm 125 96

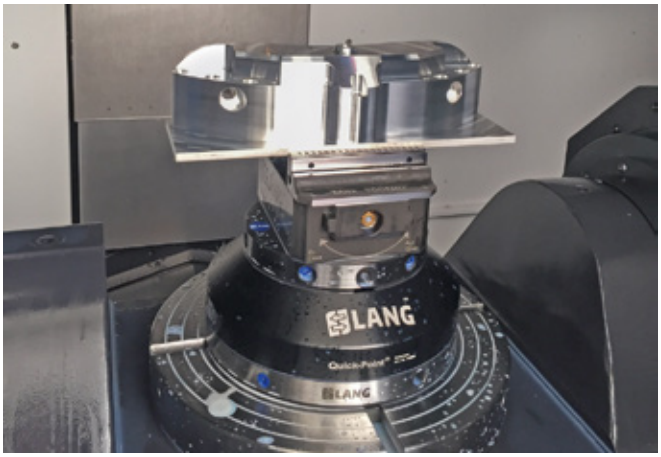
QUICK·POINT® 96, RISER, ROUND

ITEM NO.	HEIGHT	DIAMETER	WEIGHT	PRICE
44006	60 mm	bottom: 246 mm, top: 176 mm	6.6 kg	
44010	100 mm	bottom: 246 mm, top: 176 mm	11.8 kg	

Suitable for Quick·Point® plate Item No. 45800.
Included: 4 × Quick·Point® clamping studs Ø 20 mm, 6 screws M 10 + 2 bushings Ø 12 × 12 mm (Item No. 45000-09).
Individual mounting bores in the area of the flange possible.

Applications

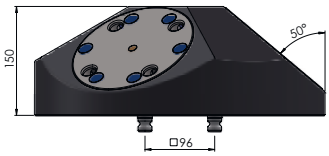


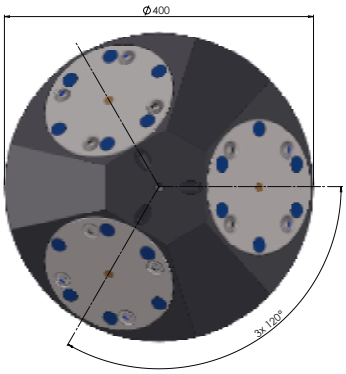


Quick·Point® **3-face Pyramid**

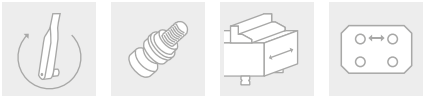
The high-strength, aluminium 3-face Pyramid with integrated Quick·Point® round plates is designed for increasing the run time of 5-axis machine tools.

NEW





Upper interface: | Lower interface:

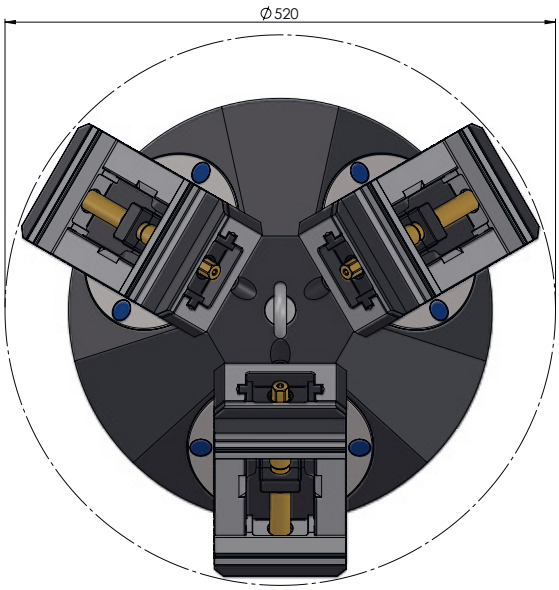


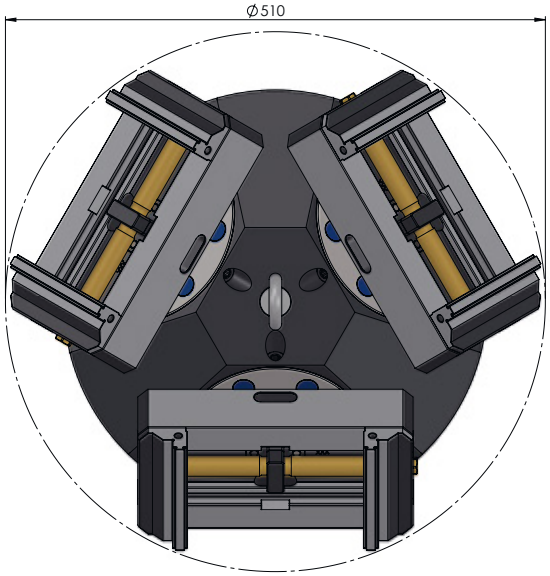
30 Nm | Ø 20 mm | 125 | 96

QUICK·POINT® 96, 3-FACE PYRAMID

ITEM NO.	DIMENSIONS	WEIGHT	PRICE
43400	Ø 400 × 150 mm	43.0 kg	

Included: 4 × Quick·Point® clamping studs Ø 20 mm

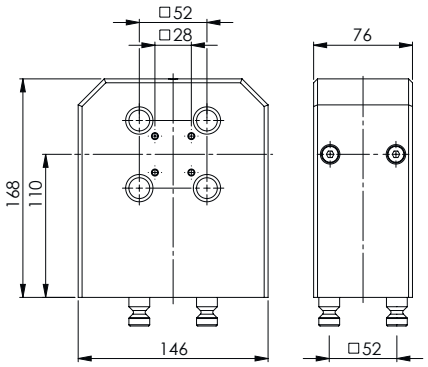


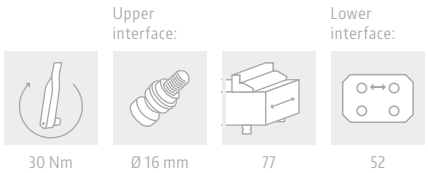


The 3-face Pyramid can accept Makro·Grip® 5-Axis Vices 125 with a maximum length of 210 mm when mounted vertically (left), whereas the maximum length is 260 mm when mounted horizontally (right).

Quick·Point® **Twin Base**

The hardened and ground Twin Base is ideal for manufacturing 5-axis parts with a 3-axis machine tool. Workpieces can be positioned 4 × 90° safely and with a high repeat accuracy.

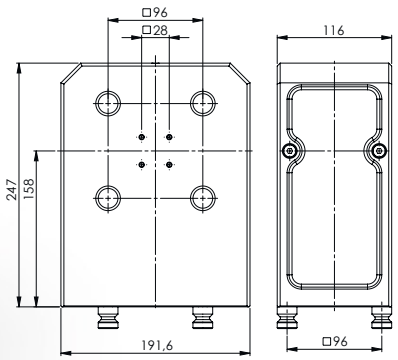


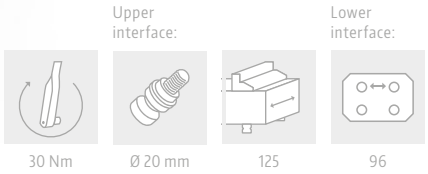


QUICK·POINT® 52, TWIN BASE

ITEM NO.	DIMENSIONS	WEIGHT	PRICE
47220	146 × 76 × 168 mm	13.9 kg	

Suitable Quick-Lock: Item No. 44552 (page 54)





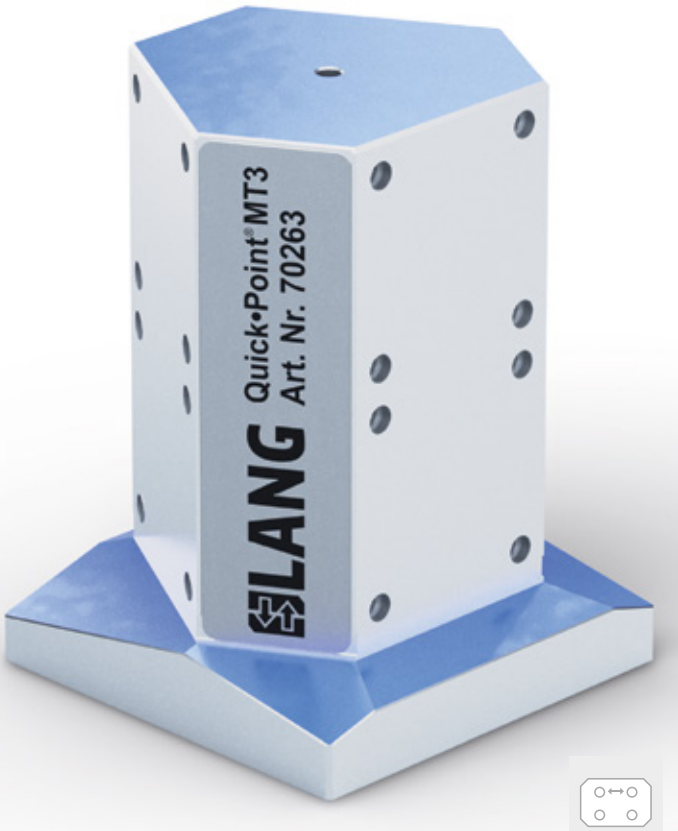
QUICK·POINT® 96, TWIN BASE

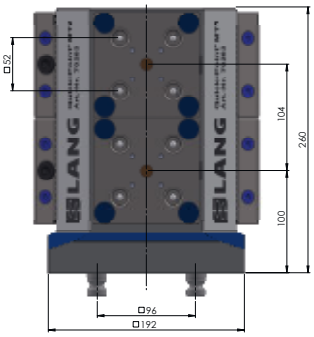
ITEM NO.	DIMENSIONS	WEIGHT	PRICE
47520	192 × 116 × 247 mm	27.8 kg	

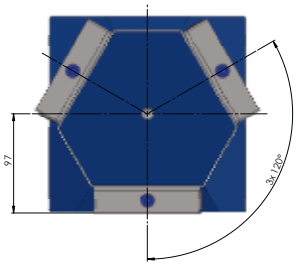
Suitable Quick-Lock: Item No. 44596 (page 54)

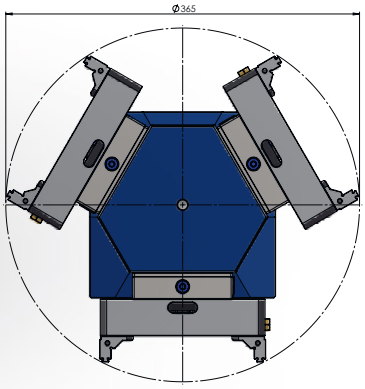
Quick·Point® **MT3**
3-face Tombstone

NEW









96

The 3-face Tombstone can accept all vices with a jaw width of 46 and 77 mm when mounted horizontally.

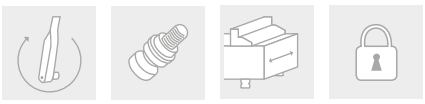
QUICK·POINT® MT3, 3-FACE TOMBSTONE

ITEM NO.	DIMENSIONS	MAX. QTY OF GRID PLATES	WEIGHT	PRICE
70263	192 × 192 × 260 mm	6 × 75600 or 3 × 45621	44.8 kg	

Included: 4 × Quick·Point® clamping studs Ø 20 mm

Suitable Quick·Point® Plate for both Tombstones:

QUICK·POINT® 52 GRID PLATE, 104 × 104 × 27 MM



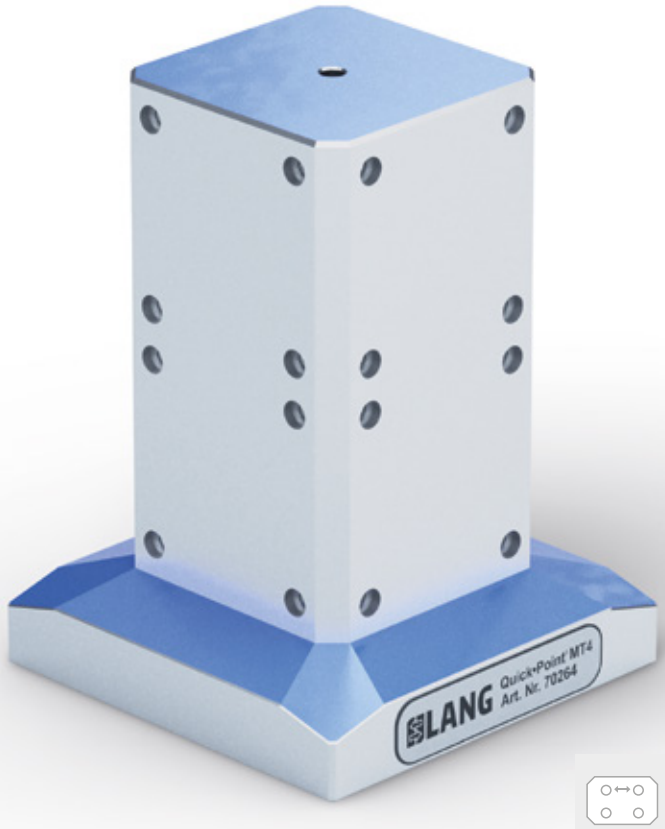
30 Nm | Ø 16 mm | 77 | ✓

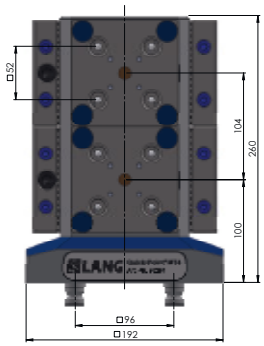
ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
75600	104 × 104 × 27 mm	82 × 82 mm	1.8 kg	

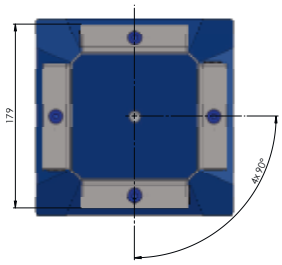
Drawing on page 16.

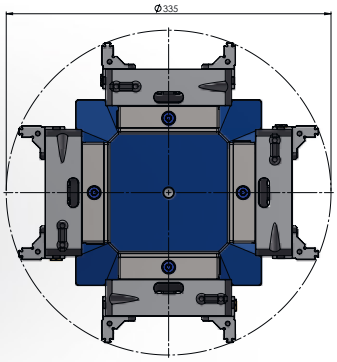
Quick·Point® **MT4**
4-face Tombstone

NEW









96

The 4-face Tombstone can accept vices (jaw width 46 / 77) with a max. base length of 130 mm when mounted horizontally.

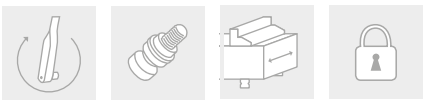
QUICK·POINT® MT4, 4-FACE TOMBSTONE

ITEM NO.	DIMENSIONS	MAX. QTY OF GRID PLATES	WEIGHT	PRICE
70264	192 × 192 × 260 mm	8 × 75600 or 4 × 45621	37.7 kg	

Included: 4 × Quick·Point® clamping studs Ø 20 mm

Suitable Quick·Point® Plate for both Tombstones:

QUICK·POINT® 52 2-FOLD GRID PLATE, 208 × 104 × 27 MM

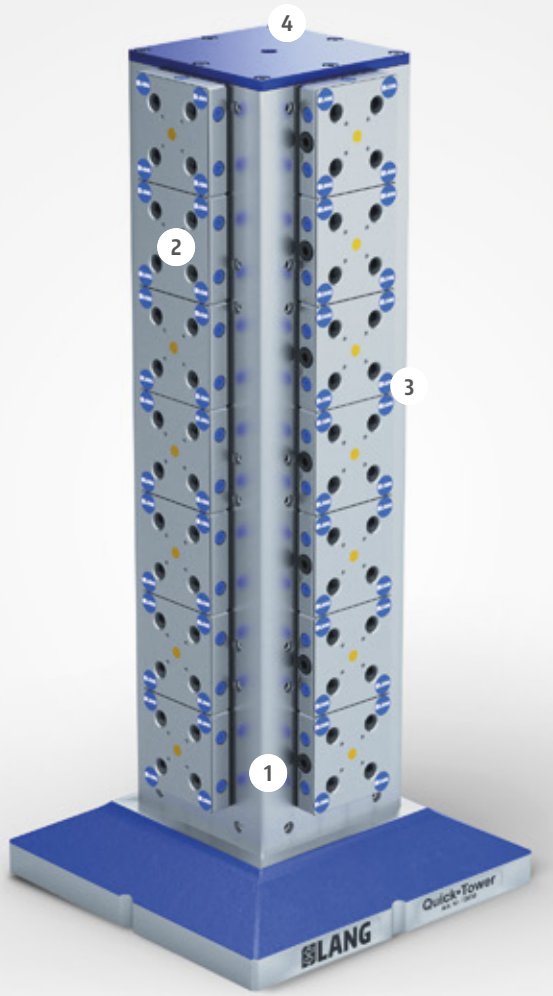


30 Nm | Ø 16 mm | 77 | ✓

ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
45621	208 × 104 × 27 mm	186 × 82 mm	4.0 kg	

Drawing on page 28.

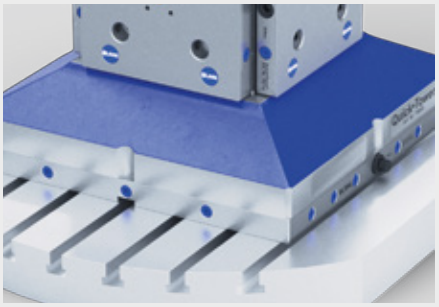
Quick·Tower – **The zero-point clamping system for horizontal machining centres**



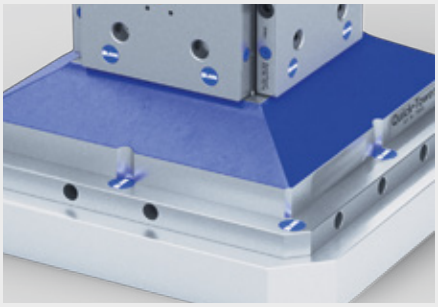
1. Stable and sturdy cast body with a plane parallelism of ± 0.02 mm
2. Up to 28 × Quick·Point® Grid Plates 52 and 16 × Quick·Point® Grid Plates 96 can be mounted depending on the size of the Quick·Tower
3. Continuous zero-point grid on all four faces
4. Included in delivery: Eye bolt for transport via crane
5. Equipped with 12 × Quick·Point® clamping studs Ø 20 mm

Mounting options

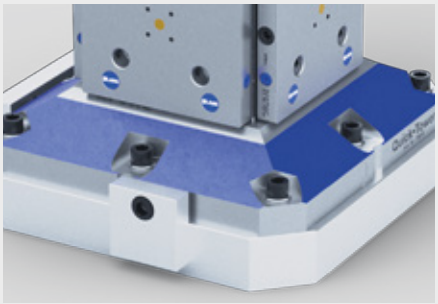
For mounting the Quick·Tower onto the machine tool table there are three options:



Mounted to the Quick·Point® system (e.g. 4-fold Grid Plate 96)

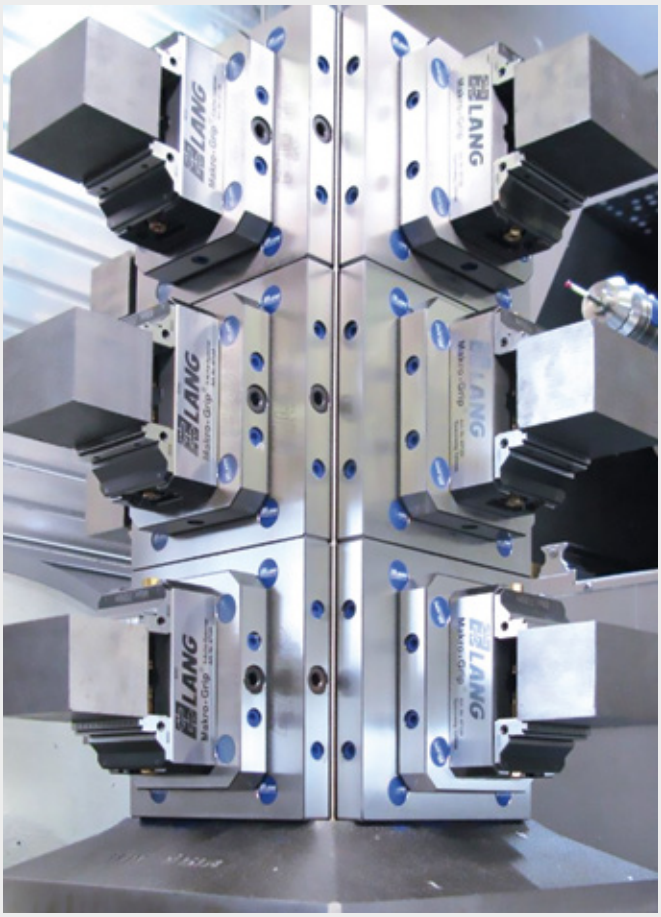


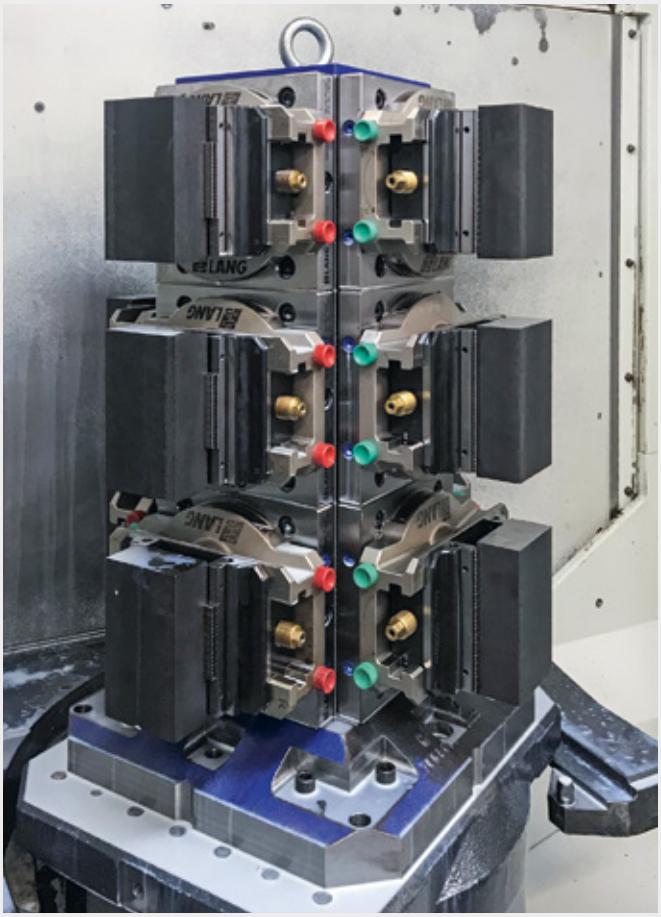
Mounted to the Quick·Tower Universal Base Plate (see page 47)

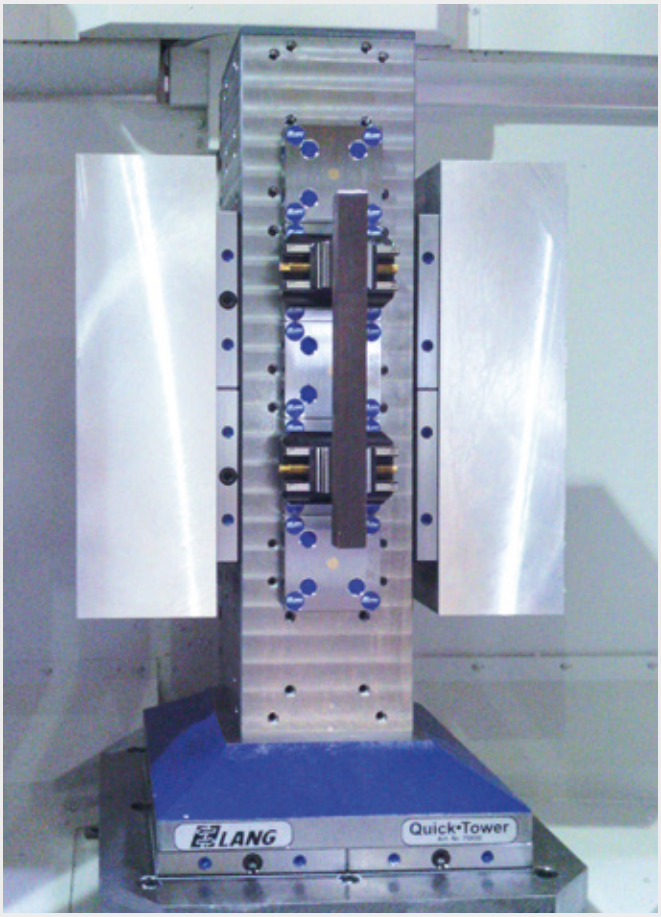


Mounted directly to the machine table with custom bores (price upon request!)

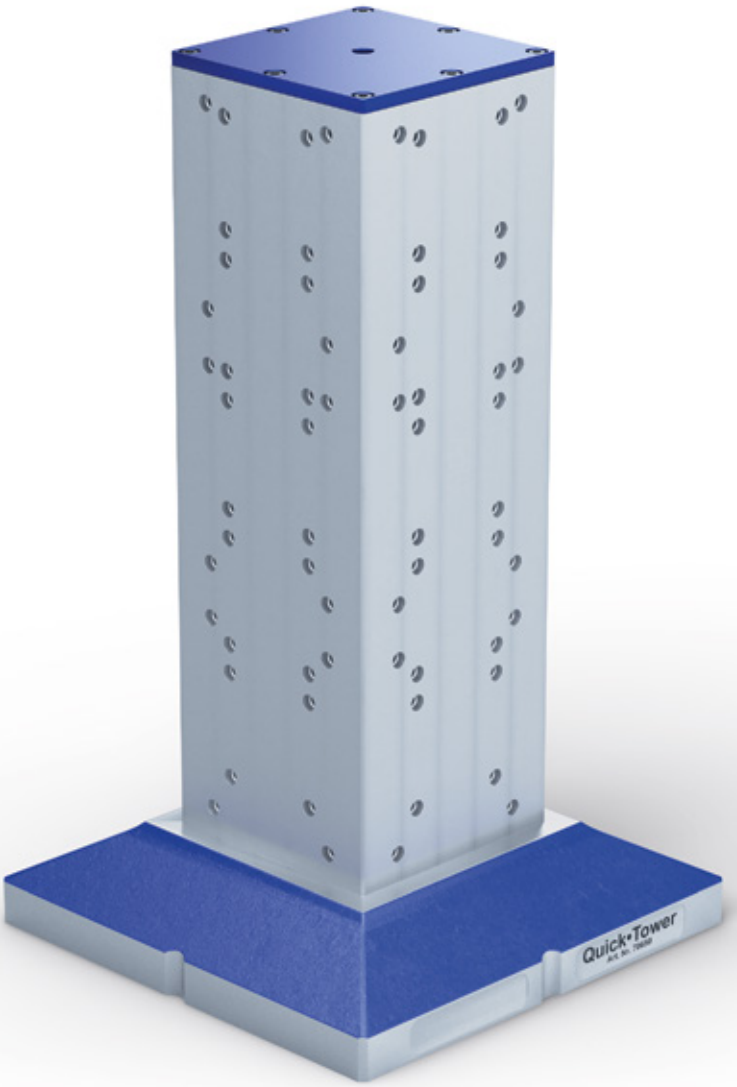
Applications

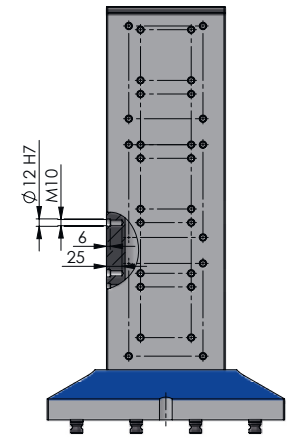


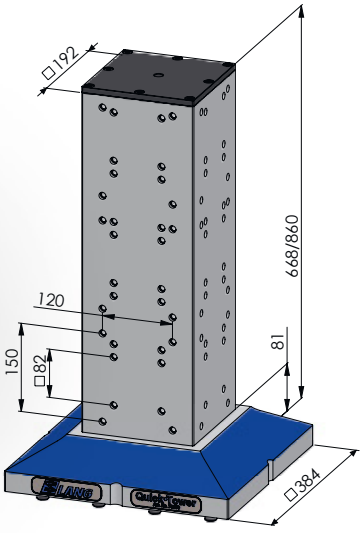




Quick·Tower **Base Body**







Grid of 150 × 120 mm is designed to mount Quick·Point® plates 75710.

Grid of 82 × 82 mm is designed to mount Quick·Point® plates 75600.

QUICK·TOWER BASE BODY

ITEM NO.	BODY DIMENSIONS	BASE DIMENSIONS	TOTAL HEIGHT	WEIGHT	PRICE
70650	192 × 192 mm	384 × 384 mm	668 mm	160 kg	
70850	192 × 192 mm	384 × 384 mm	860 mm	200 kg	

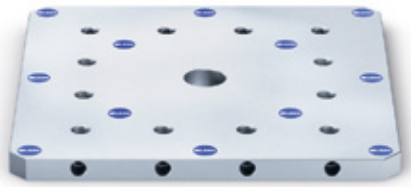
If you prefer to fix the tombstone directly onto the machine tool table/pallet using its threads or slots just ask for an individual quotation.

Quick·Tower **Universal Base Plate**

QUICK·TOWER UNIVERSAL BASE PLATE, THROUGH BORE Ø 50H7, WITHOUT MOUNTING BORES

ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
70005	396 × 396 × 27 mm	–	32.5 kg	
70006	Set mounting bores according to customer's request			

Drawing to be found on our website www.lang-technik.de



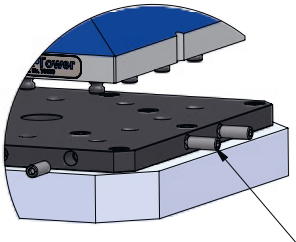
QUICK·TOWER UNIVERSAL BASE PLATE, THROUGH BORE Ø 50H7, WITH MOUNTING BORES

ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	PRICE
70008	446 × 446 × 27 mm	12 × M16 at 200 mm distance	39.5 kg	

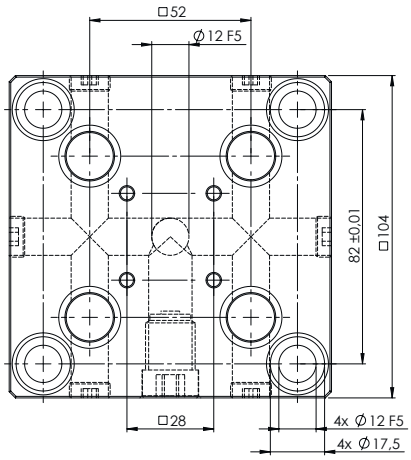
Drawing to be found on our website www.lang-technik.de

Utilisation and mounting:

These sub-plates act as an interface between the machine table and the Quick·Tower. This allows the utilisation of one standard Quick·Tower in different machine tools and/or on different pallets.
The sub-plate can be aligned concentrically using the plate's Ø 50H7 through bore and the table's/pallet's centre bore accordingly. The axial alignment can be done by probing the outer faces or adding keyways for T-slot keys. The base plate is mounted to the table/pallet with DIN EN ISO 4762 cylinder screws. The fixation of the Quick·Tower is done with 12 × M16 threaded pins that are located in the four lateral faces of the base plate. These pins fix the Quick·Tower into position strongly with Quick·Point® clamping studs.



Quick·Tower **Grid Plates**

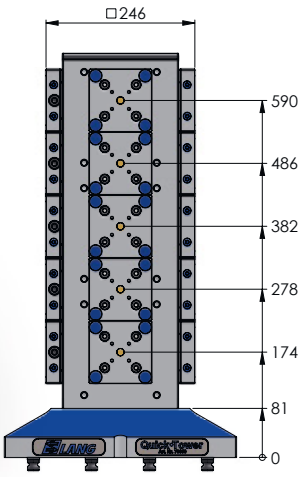


30 Nm | Ø 16 mm | 77 | ✓

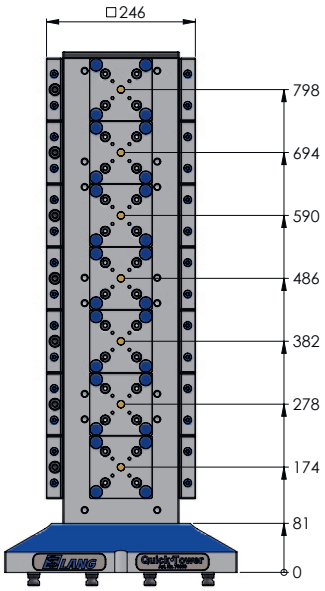
QUICK·TOWER 52, GRID PLATE 104 × 104 × 27 MM

ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	QUANTITY	PRICE*
75600	104 × 104 × 27 mm	82 × 82 mm	1.8 kg	1 – 10	
				11 – 25	
				26 – 49	
				from 50	

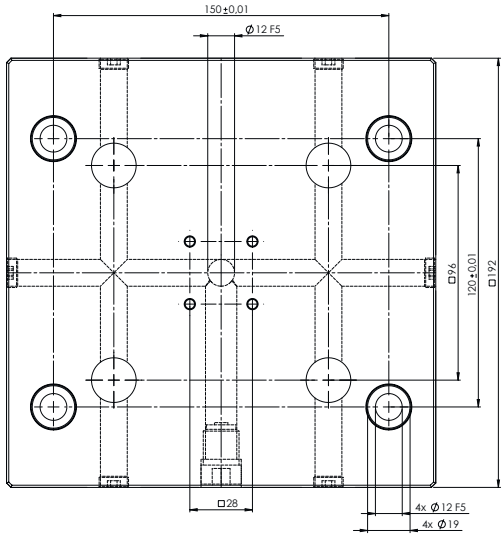
*Block pricing only applies for a purchase of a Quick·Tower.
Included: 4 screws M 10 × 35, 2 bushings Ø 12 × 12 mm (Item No. 45000-09).



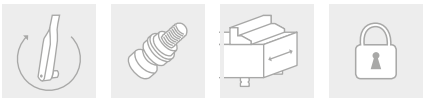
Tower 70650, height 668 mm, max. 5 pallets on each face.



Tower 70850, height 860 mm, max. 7 pallets on each face.

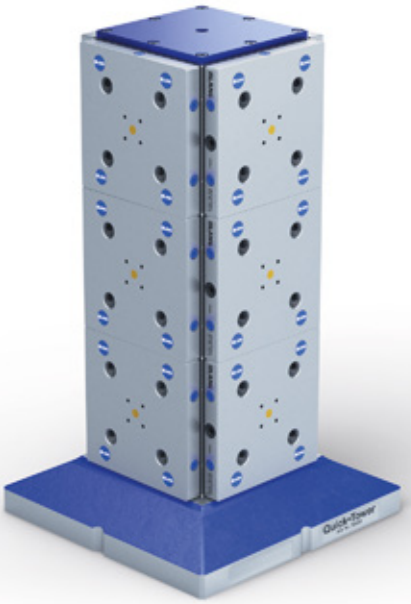


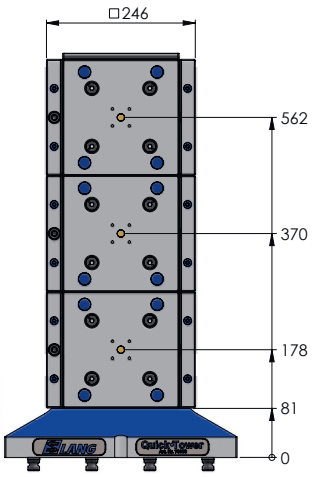
QUICK·TOWER 96, GRID PLATE
192 × 192 × 27 MM



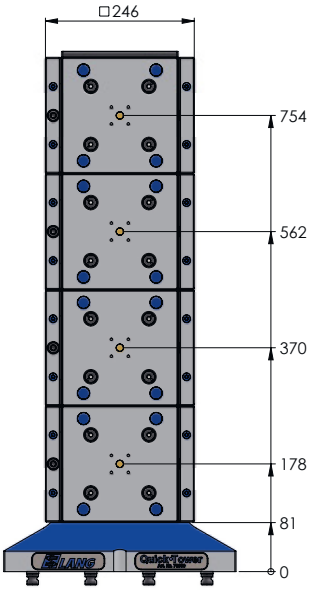
ITEM NO.	DIMENSIONS	MOUNTING BORES	WEIGHT	QUANTITY	PRICE*
75710	192 × 192 × 27 mm	150 × 120 mm	7.0 kg	1 – 6	
				7 – 11	
				12 – 29	
				from 30	

*Block pricing only applies for a purchase of a Quick·Tower.
Included: 4 screws M 10 × 35, 2 bushings Ø 12 × 12 mm (Item No. 45000-09).





Tower 70650, height 668 mm,
max. 3 pallets on each face.



Tower 70850, height 860 mm,
max. 4 pallets on each face.

Quick·Point® **Clamping Studs**

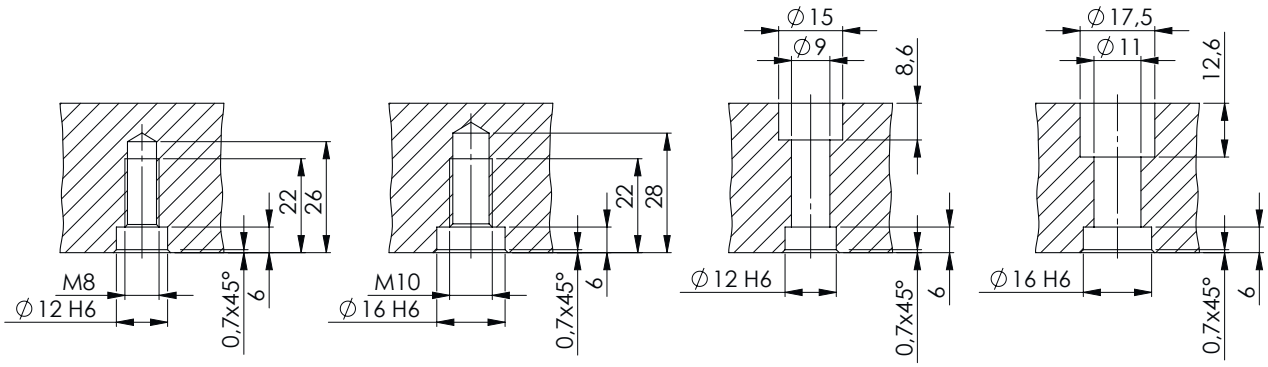
For individual adaptation of fixtures, workpieces or existing vices onto our Quick·Point® zero-point clamping system.

QUICK·POINT® CLAMPING STUDS FOR INDIVIDUAL ADAPTATION

ITEM NO.	DESCRIPTION	UNIT	PRICE
45270	Ø 16 mm for 52 mm spacing, incl. M 8 threaded pin	1 pc.	
45570	Ø 20 mm for 96 mm spacing, incl. M 10 threaded pin	1 pc.	

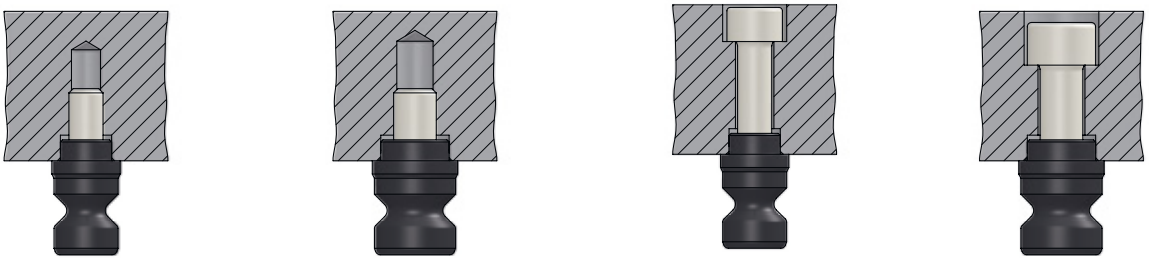
Please note: 4 Clamping Studs are required for one Quick·Point® plate!

How it works:



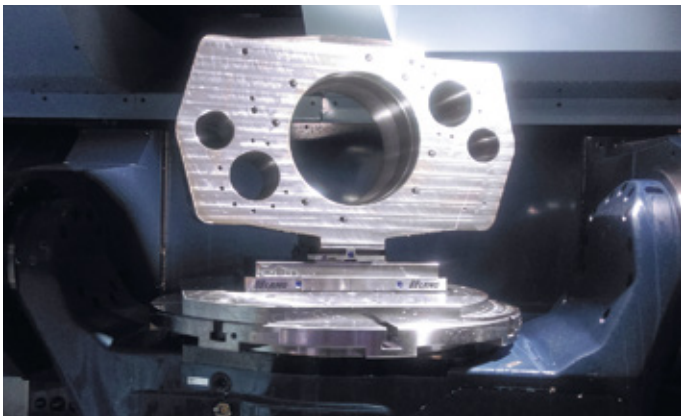
with threaded pins

with screws

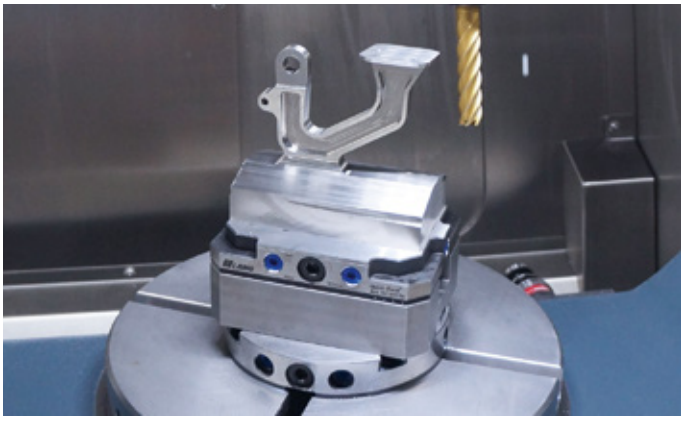


52 96 52 96

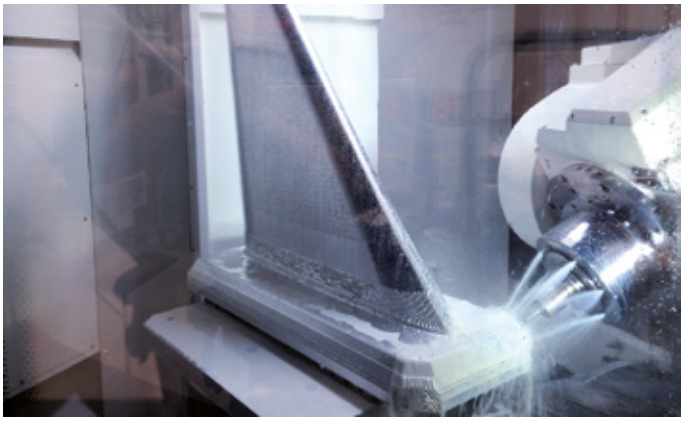
Applications:



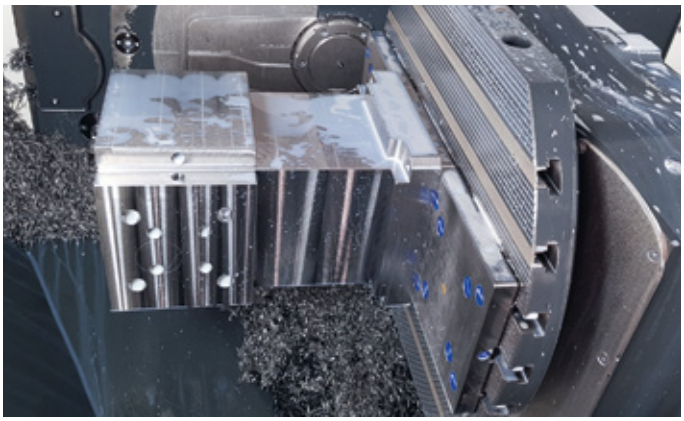
The studs need to be positioned in a 52 mm / 96 mm (± 0.01 mm) spacing for clamping workpieces straight onto the Quick·Point® plates.



The workpiece is clamped securely, without a vice, directly into the zero-point system.



Aluminium part (weight: 1.315 kg, dimensions: 1.067 × 406 × 1.016 mm) clamped with 16 clamping studs.



Not only highly precise but also extremely rigid: Workpiece with 200 kg weight, 500 mm height. Clamped with just 4 studs in a single Quick·Point® plate.

Quick·Point® **Support Plates**

Support plates made of non-hardened steel – for individual adaptation of fixtures and other devices.

Lower interface:

52

✓

QUICK·POINT® 52, SUPPORT PLATES

ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45275	96 × 96 × 27 mm	2.0 kg	
45277	156 × 156 × 27 mm	5.2 kg	

Included: 4 × Quick·Point® clamping studs Ø 16 mm

Lower interface:

96

✓

QUICK·POINT® 96, SUPPORT PLATES

ITEM NO.	DIMENSIONS	WEIGHT	PRICE
45575	156 × 156 × 27 mm	5.3 kg	
45577	192 × 192 × 27 mm	8.3 kg	

Included: 4 × Quick·Point® clamping studs Ø 20 mm

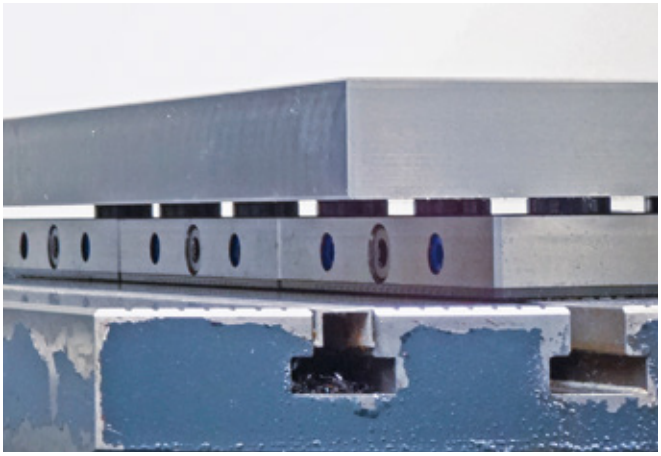
Quick·Point® **Spacer Studs**

Spacer studs allow for through holes in material which is clamped directly in the zero-point system. It also improves accessibility when machining edges and angles.

QUICK·POINT® SPACER STUDS

ITEM NO.	DIAMETER	SPACER HEIGHT	UNIT	PRICE
45270-10	Ø 16 mm for 52 mm spacing	10 mm (Ø 24 mm)	1 Set (4 pcs.)	
45570-10	Ø 20 mm for 96 mm spacing	10 mm (Ø 28 mm)	1 Set (4 pcs.)	

Applications



Quick·Point® **Quick-Lock Fast Actuation System**

Mechanical and quick fastener, compatible with all rectangular and squared Quick·Point® plates. Also compatible with the Quick·Point® 96, 2-fold Grid Plate, round. With the Quick-Lock, we provide a clamping lever and washers to adjust clamping force as needed.

QUICK·POINT® QUICK-LOCK 52

ITEM NO.	DESCRIPTION	FOR ITEM NO.	WEIGHT	PRICE
44552	Quick-Lock for Quick·Point® 52 Single-Plates, Twin Base 52, Adaptor Plate, 5-Axis Riser 52	45600 / 75600 / 45150 / 45151 / 47220 / 45160 / 45156 / 45157	0.3 kg	
45252	Quick-Lock for Quick·Point® 52, 2-fold Grid Plate	45621	0.8 kg	NEW
45452	Quick-Lock for Quick·Point® 52, 4-fold Grid Plate	45640 / 45641	0.9 kg	

QUICK·POINT® QUICK-LOCK 96

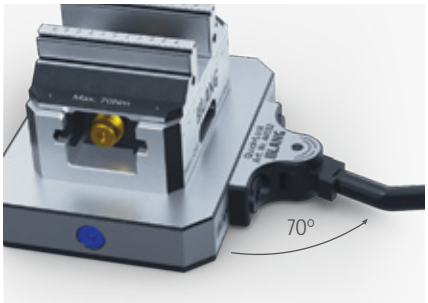
ITEM NO.	DESCRIPTION	FOR ITEM NO.	WEIGHT	PRICE
44596	Quick-Lock for Quick·Point® 96 Single-Plates, Twin Base 96, Adaptor Plate, 5-Axis Riser 96	45710 / 45763 / 45715 / 45716 / 45400 / 45401 / 47520 / 45406 / 45407	0.4 kg	
45296	Quick-Lock for Quick·Point® 96, 2-fold Grid Plate	45720	0.9 kg	
45996	Quick-Lock for Quick·Point® 96, 2-fold Grid Plates, round	45962 / 45963 / 45964	0.9 kg	NEW
45496	Quick-Lock for Quick·Point® 96, 4-fold Grid Plates	45740 / 45741 / 45742	1.0 kg	

Easy assembly in a few steps

Within just a few seconds the Quick-Lock fast actuation system is mounted to a Quick·Point® Plate.
With a 180° motion of the lever the Quick-Lock clamps and releases the vice.

Removal of the Quick·Point® actuation screw:
Remove actuation screw and the two plastic covers and keep them safe. With multi fold plates you also have to remove the actuation bolt. During the whole installation process the Quick·Point® plate does not have to be removed from the machine table if already mounted.

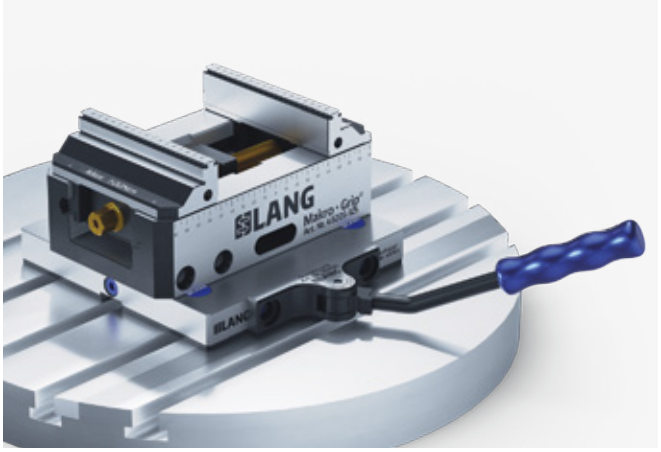
Installation of the Quick-Lock fastener:
Insert the Quick-Lock pressure bolt into the actuation screw channel and tighten the two screws.

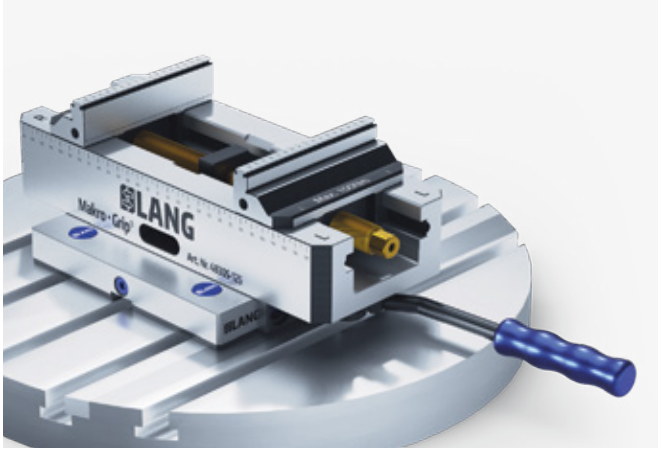


Checking the clamping forces:
Insert the clamping lever into the clamping element of the Quick-Lock fastener. Move the clamping lever in a 180° motion from right to left until you feel resistance. If the remaining angle is more/less than 70°, the clamping force needs to be adjusted by adding/removing washers. Detailed instructions and videos can be found on our website www.lang-technik.de.

Quick-Lock utilisation

The clamping lever equipped with a rotation lock can be used both horizontally and vertically.
For vices and fixtures protruding from the Quick·Point® plate, the lever is used horizontally (right picture).





Quick·Point® **Accessories**

QUICK·POINT® COVER DISCS, PLASTIC

ITEM NO.	DIAMETER	UNIT	PRICE
45008-15	Ø 15 mm	1 set (20 pcs.)	
45008-20	Ø 20 mm	1 set (20 pcs.)	
45008-27	Ø 27 mm	1 set (20 pcs.)	

Heat-resistant, fibreglass reinforced cover discs for protecting the mounting screws against material pollution.

QUICK·POINT® COVER PLUGS, PLASTIC

ITEM NO.	DIAMETER	UNIT	PRICE
45052-20	Ø 16 mm for 52 mm spacing	1 set (4 pcs.)	
45096-20	Ø 20 mm for 96 mm spacing	1 set (4 pcs.)	

Cover plugs made of plastic for the protection of the stud holes when not in use. For multi fold plates steel plugs (see below) are necessary.

QUICK·POINT® COVER PLUGS, STEEL

ITEM NO.	DIAMETER	UNIT	PRICE
45052-30	Ø 16 mm for 52 mm spacing	1 set (4 pcs.)	
45096-30	Ø 20 mm for 96 mm spacing	1 set (4 pcs.)	

Cover plugs made of steel spread the increased clamping force of multi grid plates evenly and protect stud holes not in use. They can be removed from plates with the Cover Plug Remover.

QUICK·POINT® COVER PLUG REMOVER

ITEM NO.	DESCRIPTION	PRICE
45000-30	Cover Plug Remover	

Comfortable grip with magnet for removing steel plugs from the Quick·Point® plates.

QUICK·POINT® HANDLE BAR, ALUMINIUM

ITEM NO.	DESCRIPTION	PRICE
46081	Handle Bar	

This handle bar facilitates the handling of Quick·Point® devices when setting up and dismantling. As with usual LANG clamping devices, the handle bar is clamped with two Quick·Point® 96 clamping studs in the zero-point system and is thereby especially suited for the transportation of heavier Quick·Point® products.

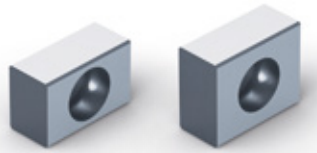
Quick·Point® **Alignment Accessories**

SLOT KEYS, LOOSE, DIN 6323, FOR AXIAL ALIGNMENT OF QUICK·POINT® PLATES

ITEM NO.	SIZE	UNIT	PRICE
452014	20 to 14 mm	1 pc.	
452018	20 to 18 mm	1 pc.	

To make the assembly and alignment of the Quick·Point® plates as easy as possible, we offer slot keys for the plates' 20H7 keyways matching your table's t-slots (14 or 18 mm).
Attention: Keys not suitable for Item No. 45800 and 45890!

NEW

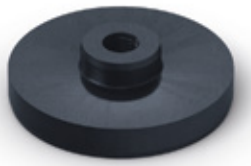


SLOT KEYS FOR AXIAL ALIGNMENT OF QUICK·POINT® ROUND PLATE, ITEM NO. 45890 (PAGE 25)

ITEM NO.	DIMENSIONS	UNIT	PRICE
452214	14 × 22 mm	1 pc.	
452218	18 × 22 mm	1 pc.	

For the alignment of Quick·Point® plate, Item No. 45890, which has 14 & 18 H7 grooves in the bottom, we offer these keys. Grooves in the plates are equipped with a M6 thread, suitable for screws DIN 84 or DIN 912, M6 × 16.

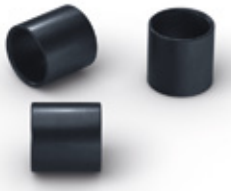
NEW



CENTRING STUDS FOR CONCENTRIC ALIGNMENT OF QUICK·POINT® PLATES

ITEM NO.	SIZE	UNIT	PRICE
451230	12 to 30 mm	1 pc.	
451232	12 to 32 mm	1 pc.	
451250	12 to 50 mm	1 pc.	
452530	25 to 30 mm	1 pc.	
452532	25 to 32 mm	1 pc.	
452550	25 to 50 mm	1 pc.	
455030	50 to 30 mm	1 pc.	
455032	50 to 32 mm	1 pc.	
455050	50 to 50 mm	1 pc.	

For the concentric alignment of Quick·Point® plates via fitting bores in the bottom (12, 25, 50 mm) we offer centring studs for the most common machine table holes (30, 32, 50 mm).



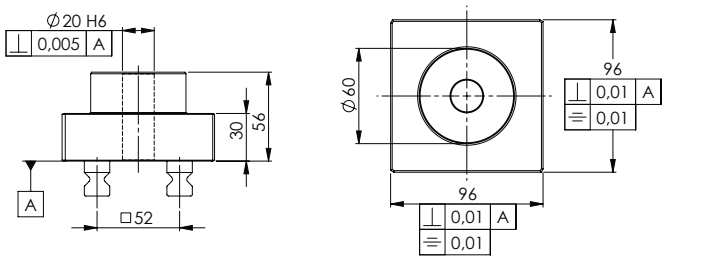
BUSHINGS FOR THE ALIGNMENT OF VICES AND ZERO-POINT PLATES

ITEM NO.	DIMENSIONS	FOR SCREW SIZE	UNIT	PRICE
45000-09	Ø 12 × 12 mm	M 10	1 pc.	
65191-04	Ø 12 × 12 mm	M 8	1 pc.	
65191-05	Ø 16 × 15 mm	M 10	1 pc.	

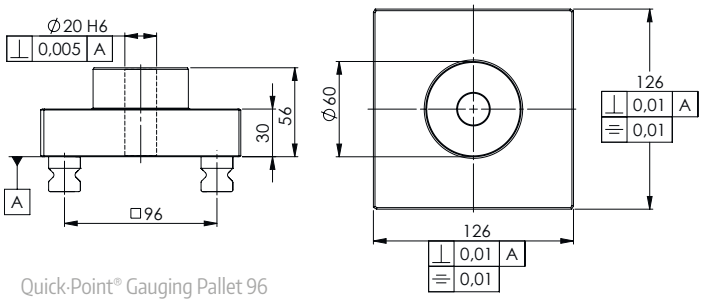
Item No. 45000-09 is suitable for aligning Quick·Point® plates on aluminum risers, Quick·Tower tombstones and other, select applications. Bushings 65191-04 and 65191-05 are used for the alignment and mounting of Makro·Grip® 5-Axis Vices on (old) LANG automation support pallets Item No. 65190 and 65197.

Quick·Point® **Gauging Pallet**

Jig-ground gauging pallet for a quick and precise alignment of Quick·Point® plates.
Recommended especially for rotary tables or chucks.



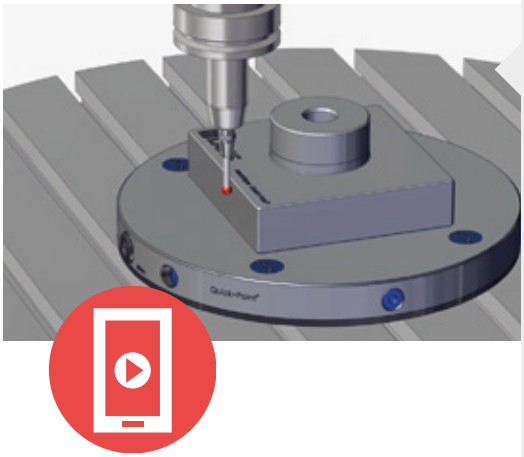
Quick·Point® Gauging Pallet 52



Quick·Point® Gauging Pallet 96

QUICK·POINT® GAUGING PALLET

ITEM NO.	FOR	DIMENSIONS	MEASURING LENGTH	WEIGHT	PRICE
44252	Quick·Point® 52	96 × 96 × 56 mm	95 mm per side	2.6 kg	
44296	Quick·Point® 96	126 × 126 × 56 mm	125 mm per side	4.2 kg	



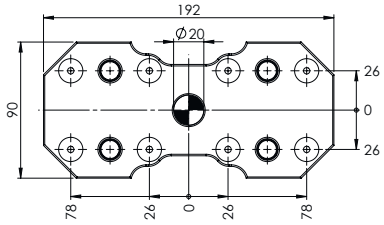
How it works:

After clamping the gauging pallet in a Quick·Point® plate, the axial alignment of the Quick·Point® plate is done by probing the jig-ground sides of the gauging pallet. For a concentric alignment the inner diameter of the gauging pallet can be used.

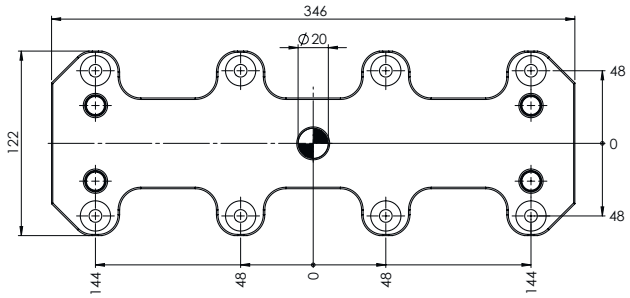
Watch the video for a complete instruction or download the manual from our website!

Quick·Point® **Alignment Gauge**

For easy and quick assembly of the Quick·Point® Grid Plates we recommend using the alignment gauge.
The precise alignment and dimensional accuracy of the plates is guaranteed.



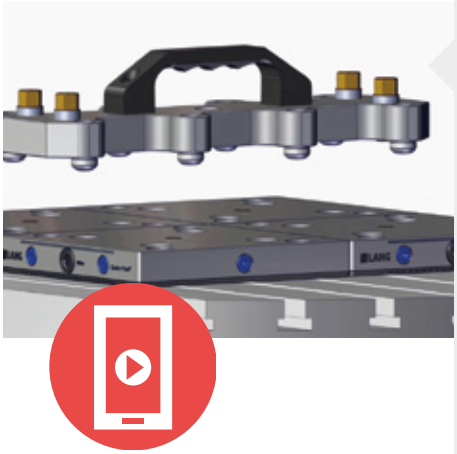
Alignment Gauge 52



Alignment Gauge 96

ALIGNMENT GAUGE FOR QUICK·POINT® GRID PLATES

ITEM NO.	DESCRIPTION	WEIGHT	PRICE
44152	Alignment gauge 52	3.4 kg	
44196	Alignment gauge 96	6.5 kg	
44152-10	Alignment gauge 52 for rent	-	
44196-10	Alignment gauge 96 for rent	-	



How it works:

The Quick·Point® Alignment Gauge guarantees an accurate alignment of two or more Grid Plates positioned next to each other. This ensures that vices and fixtures can be clamped across two different plates. After the first plate is placed on the table, aligned with a probe and the screws fixed, the alignment gauge is applied on the neighboring plates and the outer accessible fixing screws can be tightened.

Watch the video for a complete instruction or download the manual from our website!

Quick·Point® **Service**

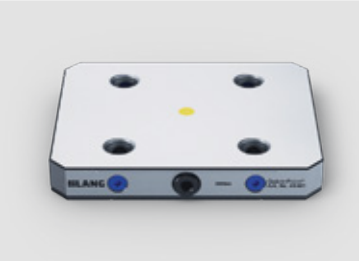
Set mounting bores

All of our Quick·Point® plates with prefabricated mounting bores are also available without such. The case-hardened zero-point plates (57 HRC, 0.7 mm deep) can be drilled according to the t-slots of the machine table. We offer this as a service.

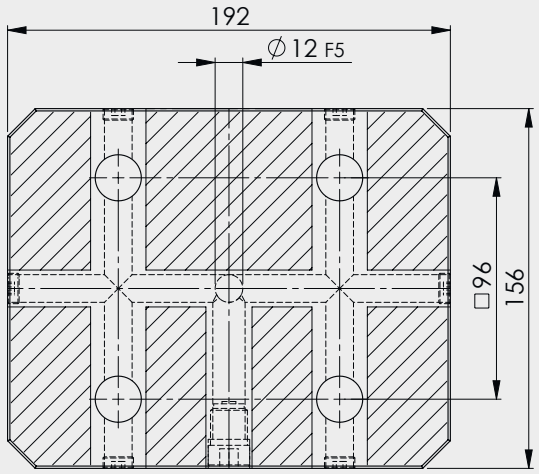
The drawings of the Quick·Point® plates without mounting bores in this catalogue show hatched areas. These areas can be used for mounting bores. On rare occasions mounting bores can even be set through rod channels. If this might be required for your application please ask your local LANG contact person.

All drawings and models, as well as video that explain the Quick·Point® plates are mounted to the machine table are available on our website www.lang-technik.de

Quick·Point® plate with prefabricated mounting bores.



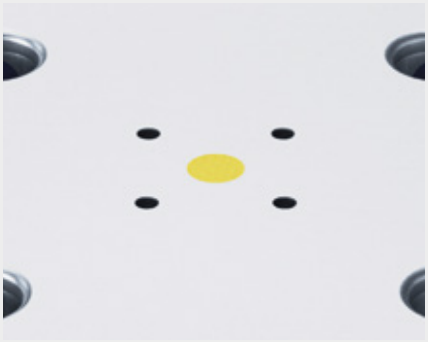
Same Quick·Point® plate without mounting bores. These can be installed by LANG or the customer.

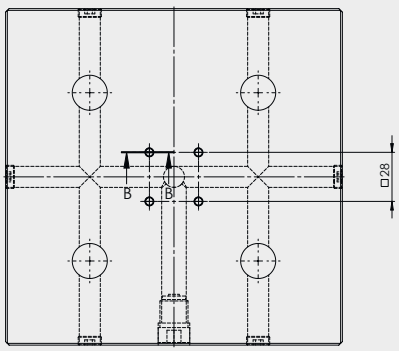


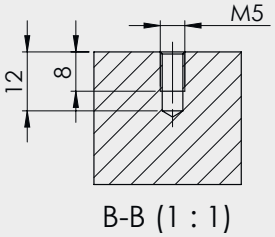
M5 Index bores

Inserting a threaded pin or screw ensures that LANG clamping devices (with an equivalent recess on the bottom) are always positioned in the correct way on the zero-point plate.

By default index bores are included in following plates: Item No. 45150, 45400, 75600, 75710, 47220 and 47520.





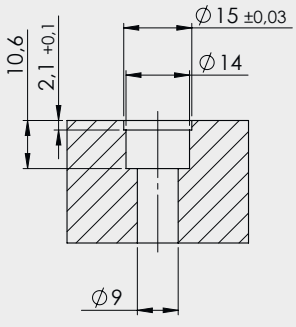


B-B (1 : 1)

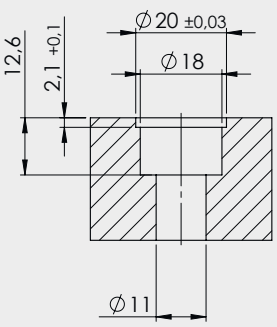
Covering mounting bores

Quick·Point® plate with plastic cover discs.

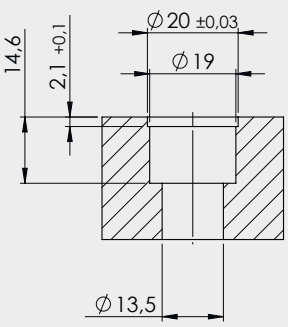
Mounting bores in Quick·Point® plates, either prefabricated or customised by LANG, have a 2.1 mm step. Plastic discs can be inserted and act as covers to prevent swarf or chips from clogging these bores. Plastic discs are available in three different diameters Ø 15 mm, Ø 20 mm and Ø 27 mm (see page 56).



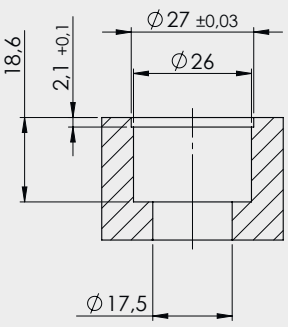
M8



M10



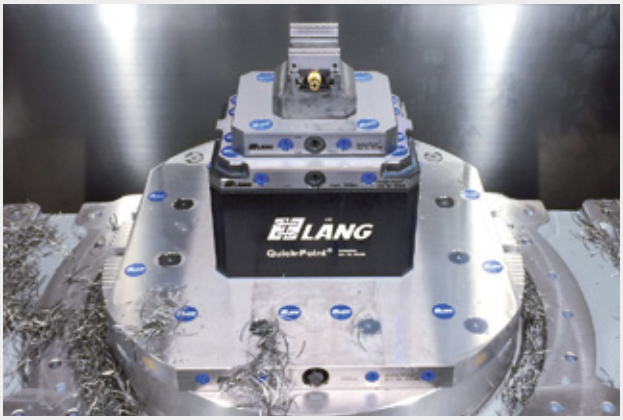
M12



M16

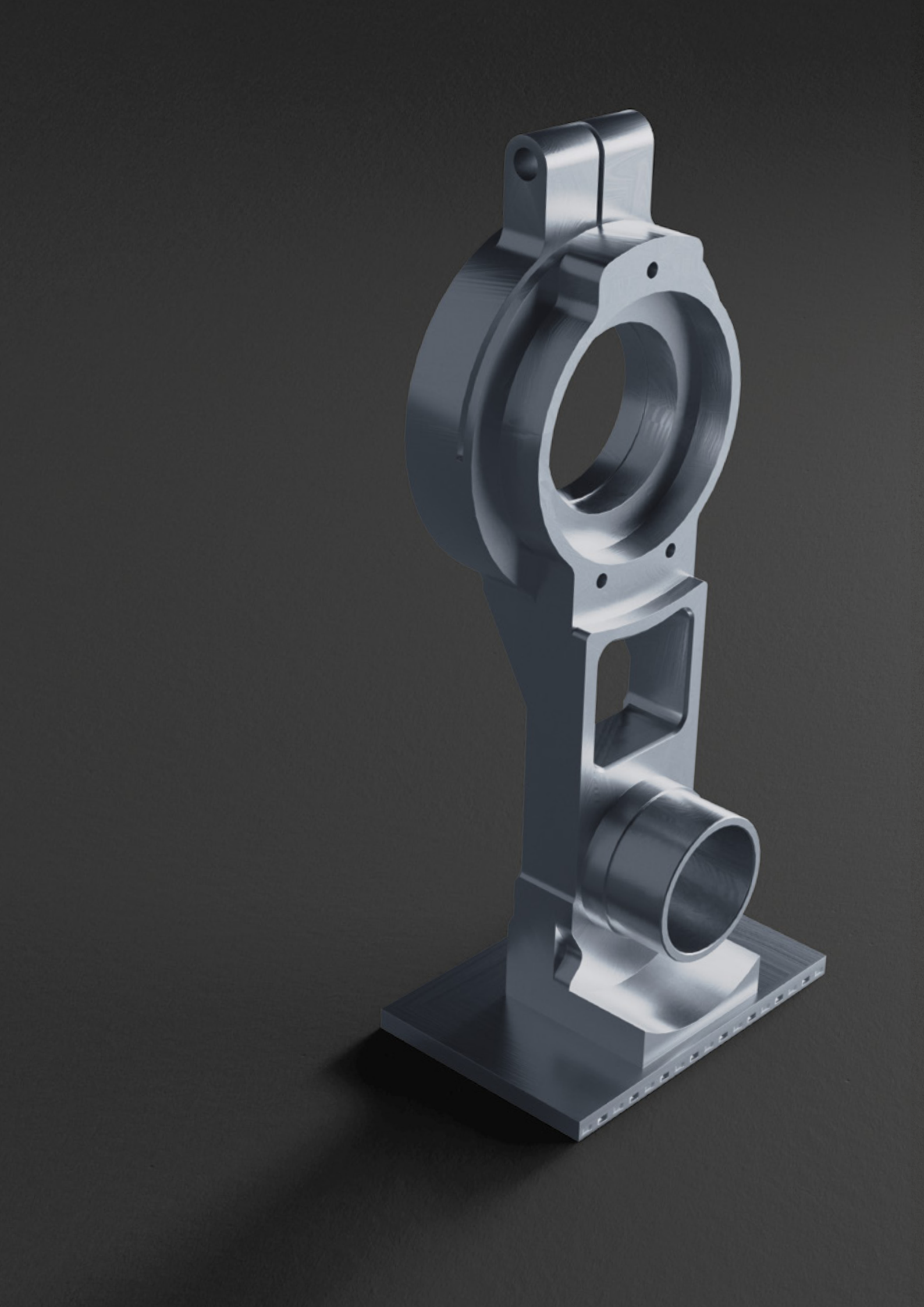
Custom corner radius for Quick·Point® grid / multi-fold plates

Upon request, we can adjust the zero-point system (multi grid or individual grid plates in a row) to round tables of the machine tool by cutting off the corners. A clean solution that avoids in most cases a protrusion of the zero-point plates to the machine table.



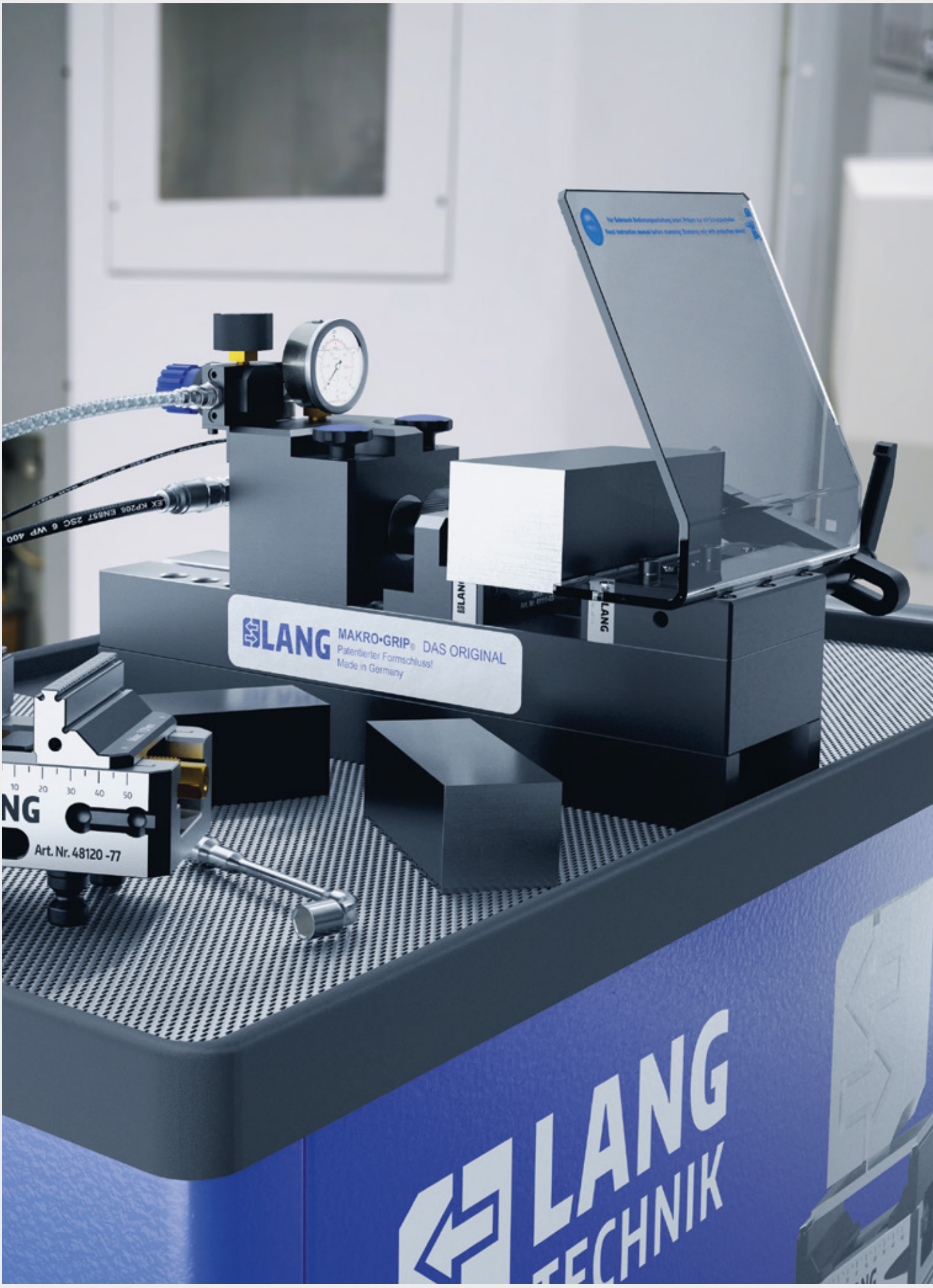
CUSTOM CORNER RADIUS FOR QUICK·POINT® GRID / MULTI-FOLD PLATES

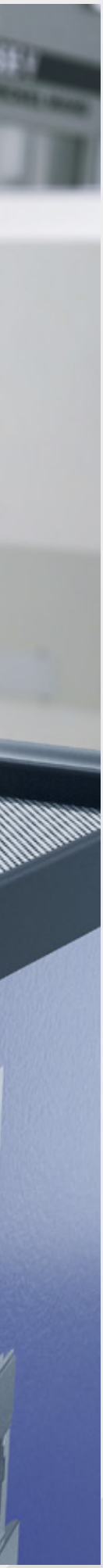
ITEM NO.	QUANTITY	PRICE
45043-01	Cut off 1 corner	
45043-02	Cut off 2 corners	
45043-04	Cut off 4 corners	



MAKRO·GRIP® STAMPING TECHNOLOGY

CONTENTS


LANG
MAKRO•GRIP® DAS ORIGINAL
Patentierter Formschluss!
Made in Germany
Art. Nr. 48120 -77
LANG
TECHNIK



ORIGINAL
MAKRO·GRIP

Makro·Grip®
Stamping Technology

Form-Closure Technology refers to a technology in which the workpiece to be clamped (up to 45 HRC) is pre-stamped with a defined contour under high stamping pressure (up to 20 t) outside of the machine tool, before it is clamped in the clamping device.

In combination with Makro·Grip® 5-Axis Vices, our Form-Closure Technology guarantees the highest holding forces, accessibility and process reliability available in 5-sided machining.

→ External Pre-Stamping

The stamping operation is performed offline. No machine tool is required for the workpiece preparation

→ Form-Closure Technology

Form-Closure clamping offers high holding forces with low clamping pressure

→ Material Savings

Minimum clamping edge requirements equals less material removal during subsequent operations

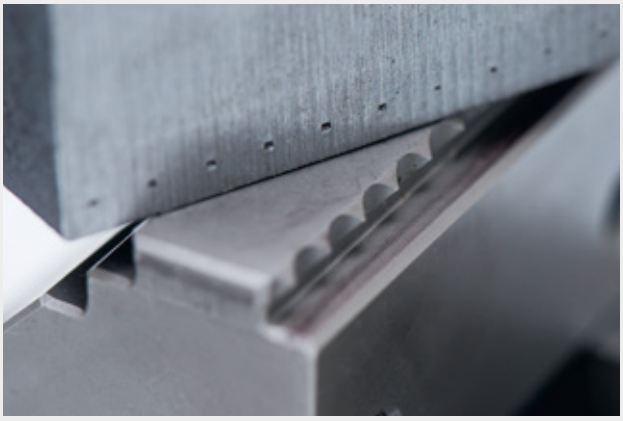
Makro·Grip® **Stamping Technology**

ORIGINAL MAKRO·GRIP

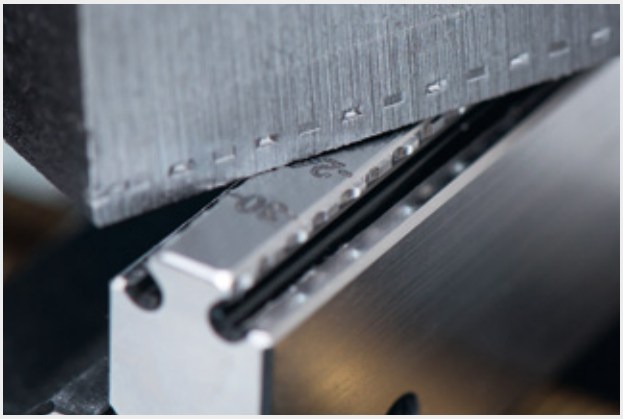
The patented Form-Closure Technology by LANG

Unique form-closure technology makes LANG clamping the very best in 5-axis machining. Form-closure fit guarantees maximum holding power with minimal clamping forces. The external pre-stamping of the workpiece favors a variety of factors that have a positive effect on process reliability and cost-effective production.

Pre-stamping technology allows even high tensile strength materials to be held reliably and without wear in the Makro·Grip® 5-Axis Vice. Workpiece blanks are prepared with a contour at an external stamping station under high pressure and ready for the workpiece clamping device. The application of force to the workpiece happens before the actual clamping process in the vice, limiting the function of the 5-Axis Vice to simply holding the workpiece.



Holding teeth of a conventional vice + indentation in workpiece



Holding teeth of a Makro·Grip® 5-Axis Vice + stamping contour in workpiece

In this aspect, the stamping technique differs fundamentally from the clamping philosophies of other manufacturers. Conventional vices must fulfill a double function with their serrated jaws (1. indent the material, 2. hold the workpiece). They are only able to build up a maximum approximate pressure of 4 - 6 tons. Penetrating the workpiece becomes a challenge, especially with harder materials. To ensure the workpiece is penetrated correctly, the holding teeth of the serrated jaws must be sharp which entails an increased susceptibility to wear, and thus negatively effects the clamping quality. For soft, distortion-prone materials, holding teeth also tend to lose holding power as they can work themselves free of the workpiece during machining forces. On the other hand, stamping technology builds up to 20 tons of pressure during external pre-stamping and ensures problem-free preparation, even with hard materials of up to 1.500 N / mm² tensile strength. After pre-stamping, only low clamping pressure is required to hold the workpiece in the 5-Axis Vice allowing its design to be very compact and eliminate wear on the clamping teeth. The contour shape (truncated pyramids) and low clamping pressure don't allow the clamping teeth to seat deeper into the workpiece, always providing a defined stop.

The use of stamping technology pays off where conventional machine vices reach their limits in terms of material hardness. Despite the low clamping pressure and compact design, the resulting clamping forces of a workpiece in the 5-Axis Vice are actually higher the harder and more resistant the material is (up to 45 HRC, non-brittle).

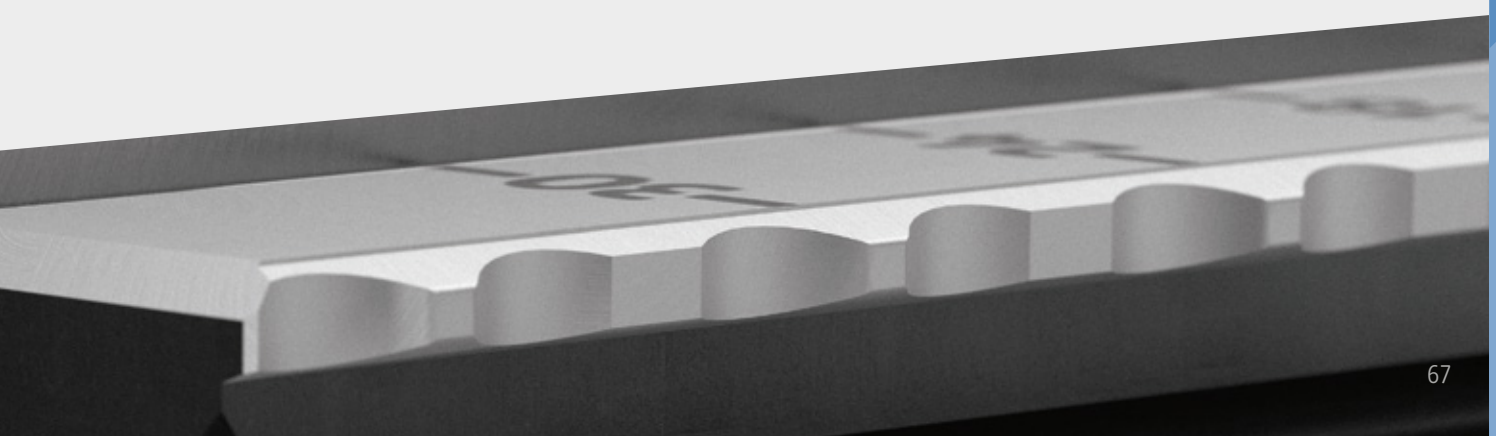
On the following pages, you will read everything you need to know about the Makro·Grip® stamping technology and how pre-stamping affects 5-face machining with the Makro·Grip® 5-Axis Vice.

Thanks to exceptional holding power the form-closure technology has many benefits:

Minimal clamping edge requirements	→	Enormous material savings	→	**RESOURCE PROTECTION**
High cutting rates	→	Shortened machining times	→	**REDUCTION OF COSTS PER PIECE**
Reduced vibrations on workpiece	→	High accuracy	→	**INCREASED MILLING QUALITY**

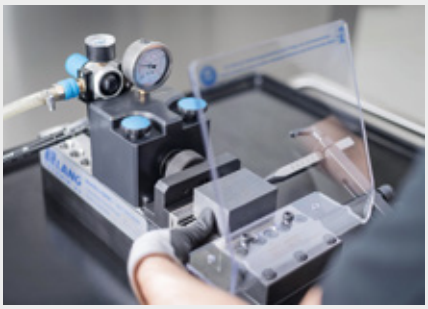
Low clamping pressure in the compact 5-Axis Vice results in:

Low clamping pressure	→	No material deformation	→	**INCREASED MILLING QUALITY**
Reduced wear on the vice	→	Higher longevity	→	**REDUCTION OF PURCHASING COSTS**
Better accessibility	→	Use of shorter tools	→	**HIGH PROCESS RELIABILITY**
Lower weight	→	Ergonomic handling	→	**RELIEVE STRAIN ON EMPLOYEES**
Smaller footprint in machine	→	More options within the work envelope	→	**BETTER USAGE OF CAPACITY**



Functional principle of the Stamping Technology

1 – Sawing



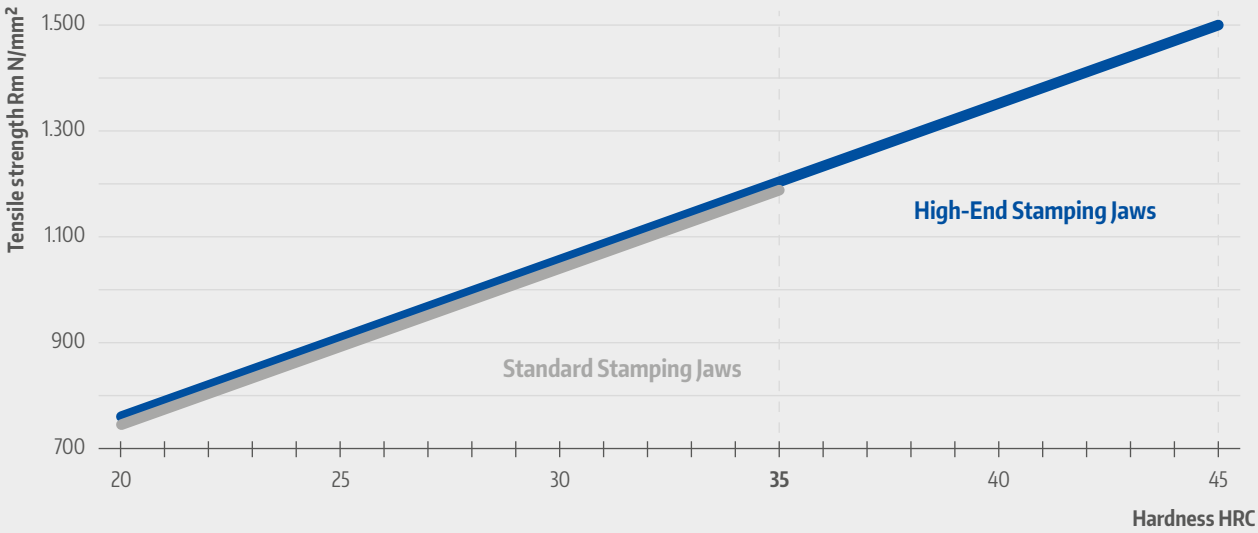
2 – Stamping

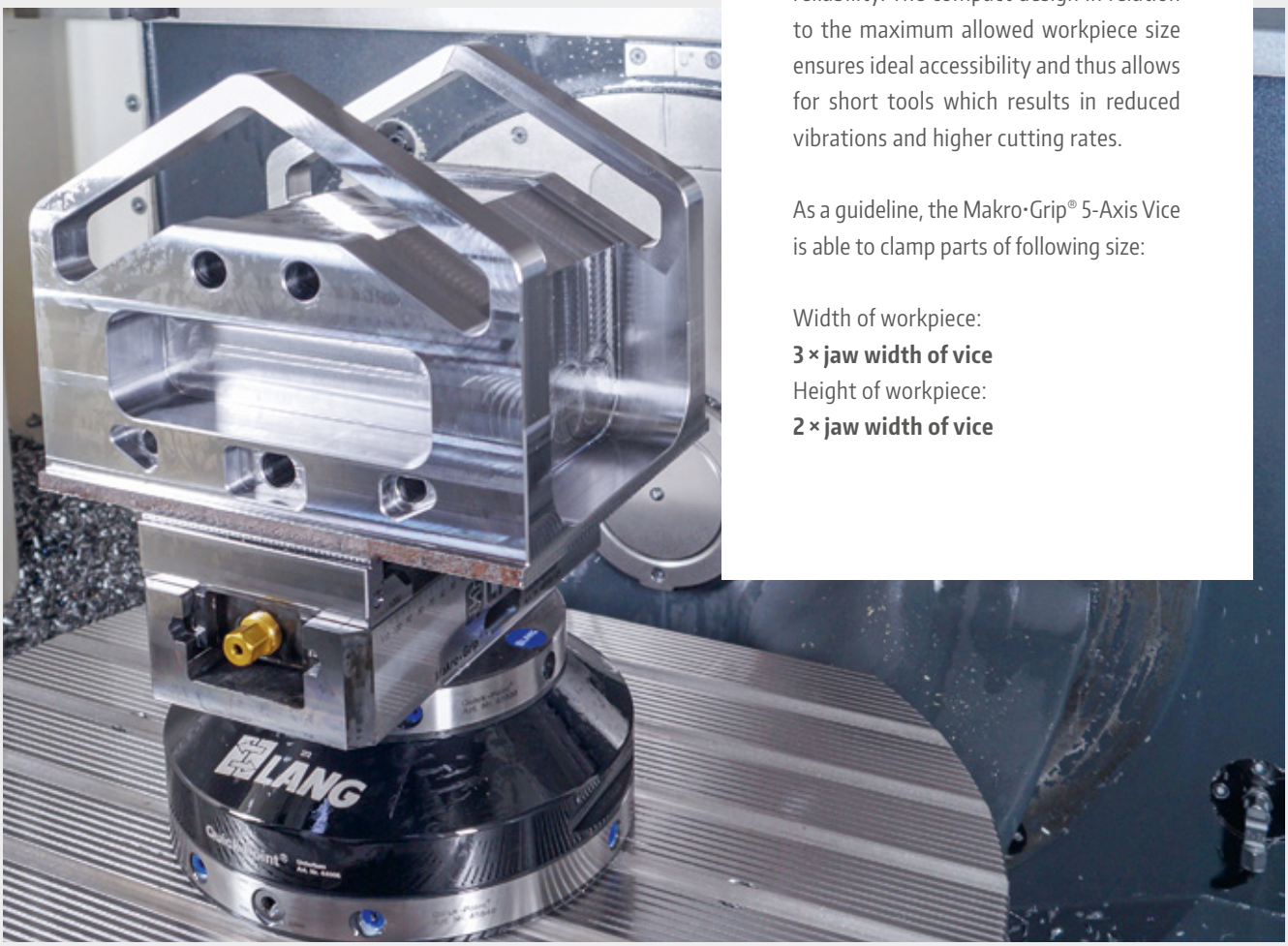
3 – Clamping

5 seconds that revolutionise your machining processes!
The workpiece is stamped directly on the saw cut or cinder layer of the blank. Additional preparatory work is generally not necessary. Stamping is realised within less than 5 seconds. The form-closure effect between the stamping contour in the workpiece (truncated pyramid indents) and the holding teeth of the 5-Axis Vice allows for an accurate repeatability even without endstops.

A reliable wear-free clamping process for high-tensile materials

The stamping unit adds the form-closure contour to the workpiece with up to 20 tons of pressure. This allows you to clamp even high-tensile materials up to 1.500 N/mm² tensile strength reliably and virtually wear-free. Different material hardness requires different stamping jaws to extend longevity and guarantee safe clamping. Our standard jaws allow you to stamp workpieces up to 35 HRC, whereas high-tensile materials up to 45 HRC require High-End stamping jaws.





Machining with the form-closure grip Before ↔ After

Stamping Technology allows the Makro·Grip® 5-Axis Vice to clamp workpieces which substantially exceed its volume. Despite a clamping depth of only 3 mm the Makro·Grip® Stamping Technology guarantees highest process reliability. The compact design in relation to the maximum allowed workpiece size ensures ideal accessibility and thus allows for short tools which results in reduced vibrations and higher cutting rates.

As a guideline, the Makro·Grip® 5-Axis Vice is able to clamp parts of following size:

Width of workpiece:
3 × jaw width of vice
Height of workpiece:
2 × jaw width of vice

Setting the Stamping Depth and Pressure Correctly

The large number of alloys makes it difficult to make an exact statement about the stamping pressure to be set. The two main parameters are workpiece width and material. In general, we recommend always starting with a low stamping pressure and slowly increasing it until the desired stamping depth in the workpiece is achieved.

For the material type 1.7131 (16MnCr5) we have made a measurement in this regard and set rough guide values for setting the stamping pressure.

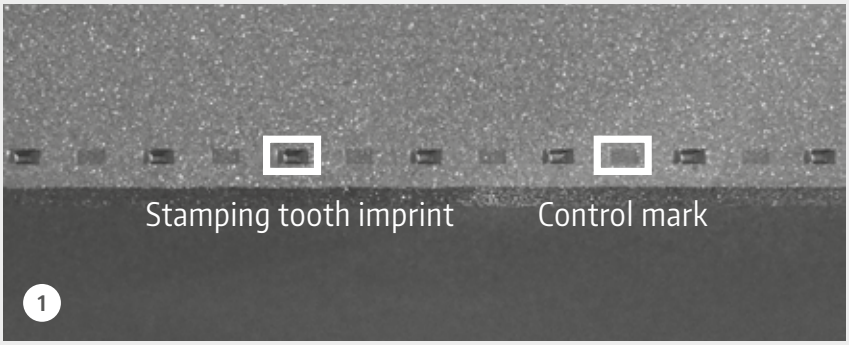
Material type 1.7131 (16MnCr5)

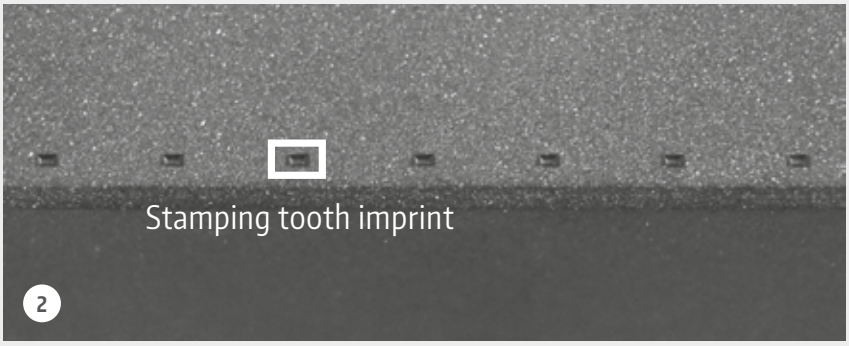
MATERIAL WIDTH	STAMPING PRESSURE
76 mm	100 bar
126 mm	140 bar

Please note: Depending on the surface quality, the required inlet pressure may deviate from these values. Therefore, carry out a test stamping and check the stamping contour with a visual inspection before each stamping series.

Stamping tooth imprint with correct stamping

The visual inspection gives the user reliable feedback as to whether the inlet pressure has been selected correctly or whether readjustment is required. Depending on the material hardness, there are two different stamping tooth imprints. Soft material needs a bit more "holding surface" due to the higher toughness. Therefore, it must be stamped in such a way that control marks between the stamping tooth imprints are visible. With harder materials, it is not necessary to stamp as deeply because of the higher resistance.





1 Material < 35 HRC with Standard stamping jaws

The stamping contour with alternating stamping tooth imprints and control marks is clearly visible. The depth of the control marks should be about 0.1 mm. The depth of the imprints should be about 0.25 mm.

2 Materials > 35 HRC with High-End stamping jaws

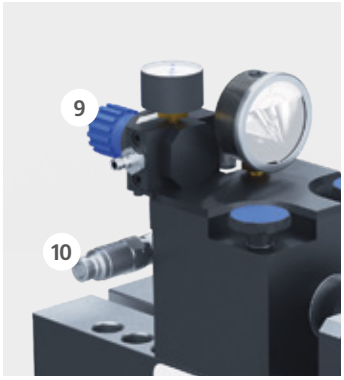
For material with a hardness between 35 and 45 HRC, the control marks should not be visible. The depth of the imprints is about 0.15 mm.

Tip for your benefit:

Using a side-milling cutter for finishing parts in one operation

By pre-stamping a workpiece, the force application of the workpiece clamping takes place outside the machine. This significantly reduces the clamping force to be exerted on a vice. A small, compact vice is sufficient to clamp oversized workpieces. The form-closure effect created by pre-stamping makes it possible to safely pick up a component at its smallest cross-section and clamp it edgewise and for ideal accessibility. Now a large number of components can be machined in one clamping process before finishing the workpiece with a side-milling cutter.

Makro·Grip® **Stamping Unit**



Rear view

1. Operated pneumatically by hand or foot
2. Pneumatic-hydraulic power multiplier with visible oil-level display
3. Makrolon protection shield
4. Easily readable hydraulic pressure gauge
5. Quick adjustment of stamping with for different part sizes
6. Robust steel hydraulic housing with integrated T-slot key
7. Scaled endstop for quick positioning of blanks
8. Stamping jaws for all materials up to 35 HRC / 45 HRC
9. Conventient adjustment of the stamping pressure
10. Quick connection system consisting of quick connector and quick connector socket

MAKRO·GRIP® STAMPING UNIT FOR WORKBENCHES

ITEM NO.	TYPE	MAX. STAMPING RANGE	TYPE OF STAMPING JAWS	WEIGHT	PRICE
41200	Standard	245 mm	Standard stamping jaws for materials up to 35 HRC	76 kg	
41350	Extended	355 mm	Standard stamping jaws for materials up to 35 HRC	84 kg	
41200-HE	Standard	245 mm	High-End stamping jaws for materials up to 45 HRC	76 kg	
41350-HE	Extended	355 mm	High-End stamping jaws for materials up to 45 HRC	84 kg	

Scope of delivery:
- Stamping vice
- Stamping jaws with parallels, 3 mm
- Pneumatic-hydraulic power multiplier (1 – 360 bar)
- Gauging blocks for measuring wear of stamping teeth
- Scaled workpiece endstop
- Protection shield

Stamping trolley with Makro·Grip® Stamping Unit, Standard

1. Makro·Grip® Standard Stamping Unit with a stamping range up to 245 mm
2. T-slot plate can be retrofitted
3. Practical, rigid trolley for a flexible and mobile use
4. Broad space on the plastic tray that can be used for preparing vices or for depositing tools, etc.

STAMPING TROLLEY WITH MAKRO·GRIP® STAMPING UNIT, STANDARD

ITEM NO.	TYPE	MAX. STAMPING RANGE	TYPE OF STAMPING JAWS	WEIGHT	PRICE
41521	Standard	245 mm	Standard stamping jaws for material up to 35 HRC	210 kg	
41521-HE	Standard	245 mm	High-End stamping jaws for material up to 45 HRC	210 kg	

Scope of delivery:
- Stamping vice
- Stamping jaws with parallels, 3 mm
- Workshop trolley
- Protection shield
- Pneumatic-hydraulic power multiplier (1-360 bar)
- Gauging blocks for measuring wear of stamping teeth
- Scaled workpiece endstop

Stamping trolley with Makro·Grip® Stamping Unit, extended, on T-slot plate

1 Large stamping range up to 355 mm

2 Practical, rigid trolley for a flexible and mobile use

3 T-slot plate included allowing a second stamping unit to be retrofitted easily with marking bores or T-slot

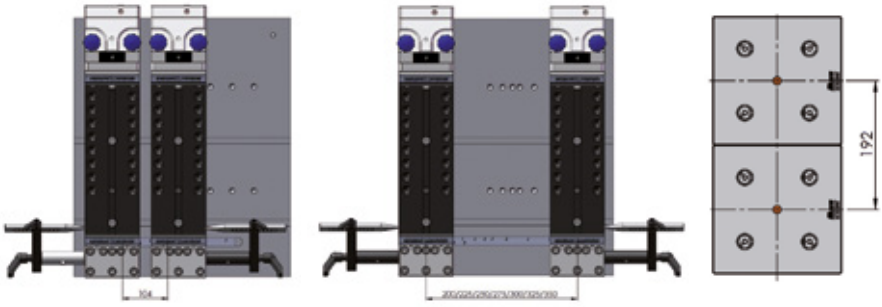
STAMPING TROLLEY WITH MAKRO·GRIP® STAMPING UNIT, EXTENDED, ON T-SLOT PLATE

ITEM NO.	TYPE	MAX. STAMPING RANGE	TYPE OF STAMPING JAWS	WEIGHT	PRICE
41400	Extended	355 mm	Standard stamping jaws for material up to 35 HRC	300 kg	
41400-HE	Extended	355 mm	High-End stamping jaws for material up to 45 HRC	300 kg	
41140	Additional extended stamping vice for dual stamping	355 mm	Standard stamping jaws for material up to 35 HRC	50 kg	
41140-HE	Additional extended stamping vice for dual stamping	355 mm	High-End stamping jaws for material up to 45 HRC	50 kg	

Scope of delivery Item No. 41400 und 41400-HE:

- Stamping vice
- T-slot plate 596 × 496 mm
- Stamping jaws with parallels, 3mm
- Pneumatic-hydraulic power multiplier (1-360 bar)
- Workshop trolley
- Gauging blocks for measuring wear of stamping teeth
- Scaled workpiece endstop
- Protection shield

Stamping trolley with Makro·Grip® Dual Stamping Unit, extended, on T-slot plate



The dual stamping unit is ideal for preparing long parts with two stamping vices simultaneously and clamping these stamped parts accordingly in two 5-Axis Vices on the machine table.

The distance of the two units can be adjusted individually using the T-slots or marking bores, in order to match the distance of Quick·Point® pitch and thus the position of the Makro·Grip®s' holding teeth.

STAMPING TROLLEY WITH MAKRO·GRIP® DUAL STAMPING UNIT, EXTENDED, ON T-SLOT PLATE

ITEM NO.	TYPE	MAX. STAMPING RANGE	TYPE OF STAMPING JAWS	WEIGHT	PRICE
41402	Extended	2 × 355 mm	Standard stamping jaws for material up to 35 HRC	350 kg	
41402-HE	Extended	2 × 355 mm	High-End stamping jaws for material up to 45 HRC	350 kg	

Scope of delivery:
- 2 stamping vices
- T-slot plate 596 × 496 mm
- 2 pairs of stamping jaws with parallels, 3 mm
- Pneumatic-hydraulic power multiplier (1-360 bar)
- Workshop trolley
- Gauging blocks for measuring wear of stamping teeth
- 2 scaled workpiece endstop
- 2 protection shield

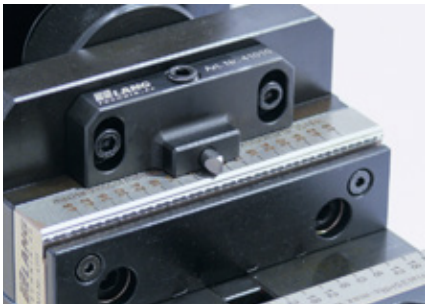
Centre Marking Tool for Stamping Unit

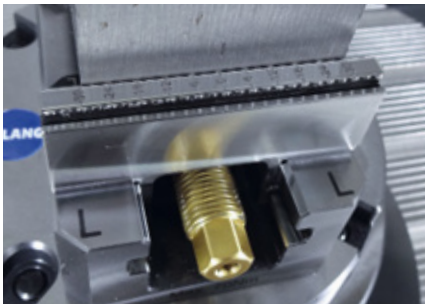
The centre marking tool plunges a notch above the stamping contour at the centre of the part.
This marking allows the exact and centric positioning of parts in Makro·Grip® 5-Axis Vices without any endstops.

CENTRE MARKING TOOL

ITEM NO.	DESCRIPTION	PRICE
41010	Centre marking tool	
41010-01	Spare marking stud	

The centre marking tool will be mounted to the moveable jaw of the stamping unit with two M 6 × 14 screws (included).





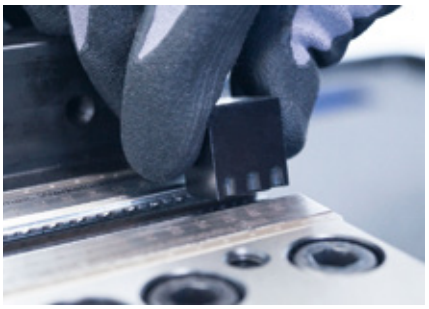
Gauging Blocks for measuring wear of Stamping Jaws

GAUGING BLOCKS FOR MEASURING WEAR OF STAMPING JAWS

ITEM NO.	UNIT	PRICE
41020	1 set (3 pcs.)	

Creating trust! Always the same clamping quality. To ensure consistent holding power in the clamping device, it is necessary to check the wear of the stamping teeth regularly.

Position one gauging block with slots on each side of the stamping jaws. Tighten the jaws by hand only, do not actuate the switch!



Make sure that the stamping teeth are placed in the grooves of the gauging blocks.

When the indicator block fits between the stamping contour, the jaws need to be sent in for reconditioning.

Stamping Jaws –
Standard and High-End version

STANDARD STAMPING JAWS WITH 3 MM PARALLELS

ITEM NO.	FOR MATERIALS	UNIT	PRICE
41111	up to 35 HRC	1 pair	

Standard stamping jaws for all materials up to 35 HRC.

HIGH-END STAMPING JAWS WITH 3 MM PARALLELS

ITEM NO.	FOR MATERIALS	UNIT	PRICE
41112	up to 45 HRC	1 pair	

Standard stamping jaws for all materials up to 45 HRC.

Reconditioning Stamping Jaws

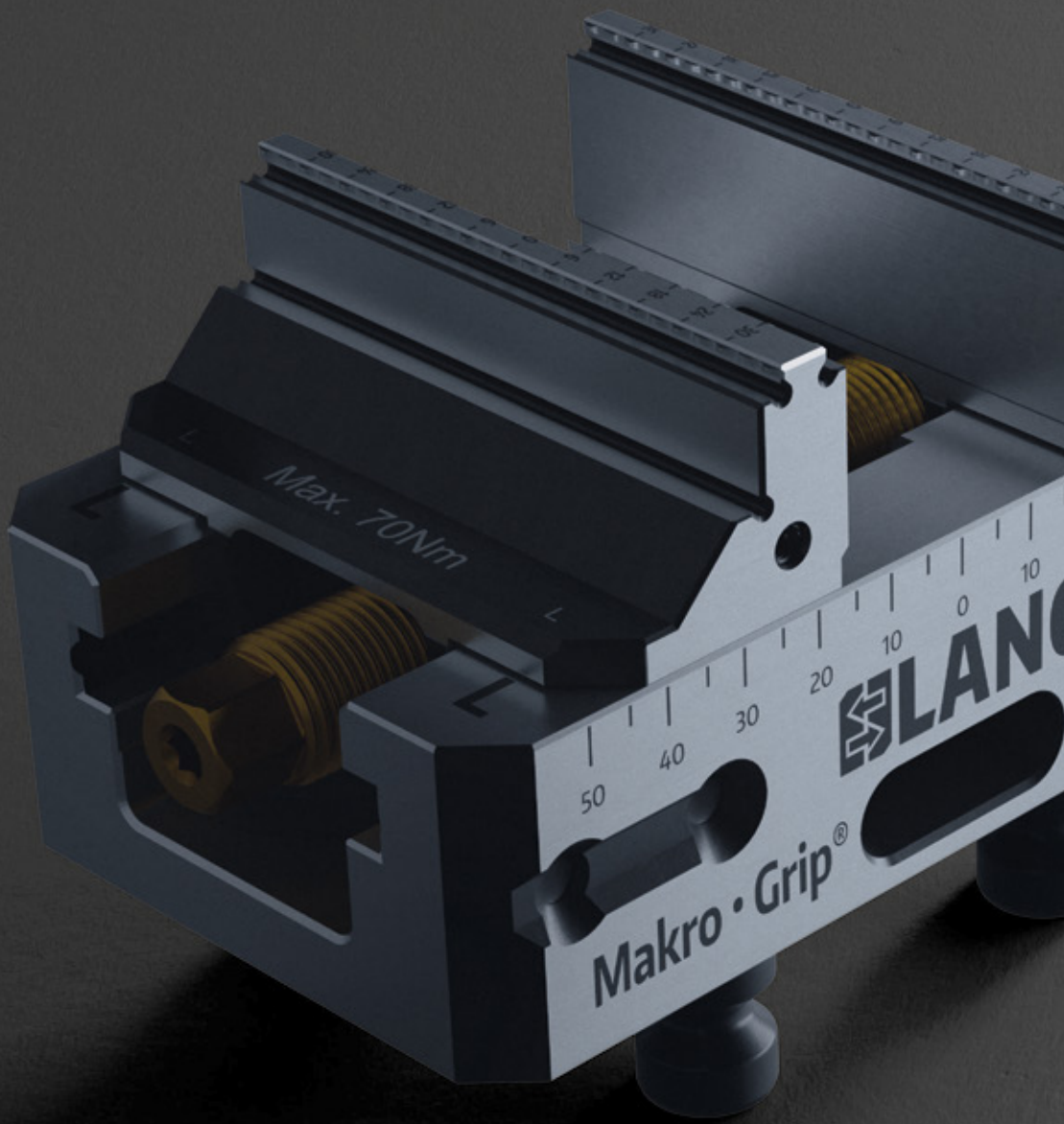
RECONDITIONING STAMPING JAWS

ITEM NO.	VERSION	PRICE
41111-01	Standard stamping jaws	
41112-01	High-End stamping jaws	

When the stamping teeth are worn out the jaws can be reconditioned up to 6 times per pair. The original thickness of a stamping jaw is 18 mm. With every reconditioning process the thickness is reduced by 0.5 mm until it has reached 15 mm (measured at the highest stamping tooth tip). If a stamping tooth is broken off more than the regular 0.5 mm per reconditioning is required. The total amount of possible reconditioning processes is reduced accordingly.

Note for dual stamping: With every reconditioning process we generally supply shims. The thickness of these shims is determined by the remaining thickness of the stamping jaw. Thickness of stamping jaw and shim will always amount to 18 mm. This guarantees that stamping jaws which have been reconditioned at different intervals can be used together, applying the same pressure on the workpiece.

Tip for your benefit: In order to bridge the time of the reconditioning process we suggest keeping a second pair of stamping jaws in reserve!


Max. 70Nm
50
40
30
20
10
0
10
Makro • Grip®

MAKRO·GRIP®
5-AXIS VICES / RAW PART CLAMPING

CONTENTS


LANG
Makro · Grip®
Art. Nr. 48160 -77
LANG
30Nm
Quick•Point®
Art. Nr. 45150
LANG
Quick•Point®
Unterbau
Art. Nr. 43100
LANG
30Nm
Quick•Point®
Art. Nr. 45963

Makro·Grip®
5-Axis Vice

External pre-stamping enables a workpiece to be held reliably in the Makro·Grip® 5-Axis Vice with low clamping pressure. Deformation and distortion of the material during clamping are therefore excluded and wear on the clamping device is reduced to a minimum.

Its compact design and the use of form-closure technology make the 5-Axis Vice ideal for 5-sided machining.

→ Accessibility

Compact design for the use of short tools

→ Holding Force

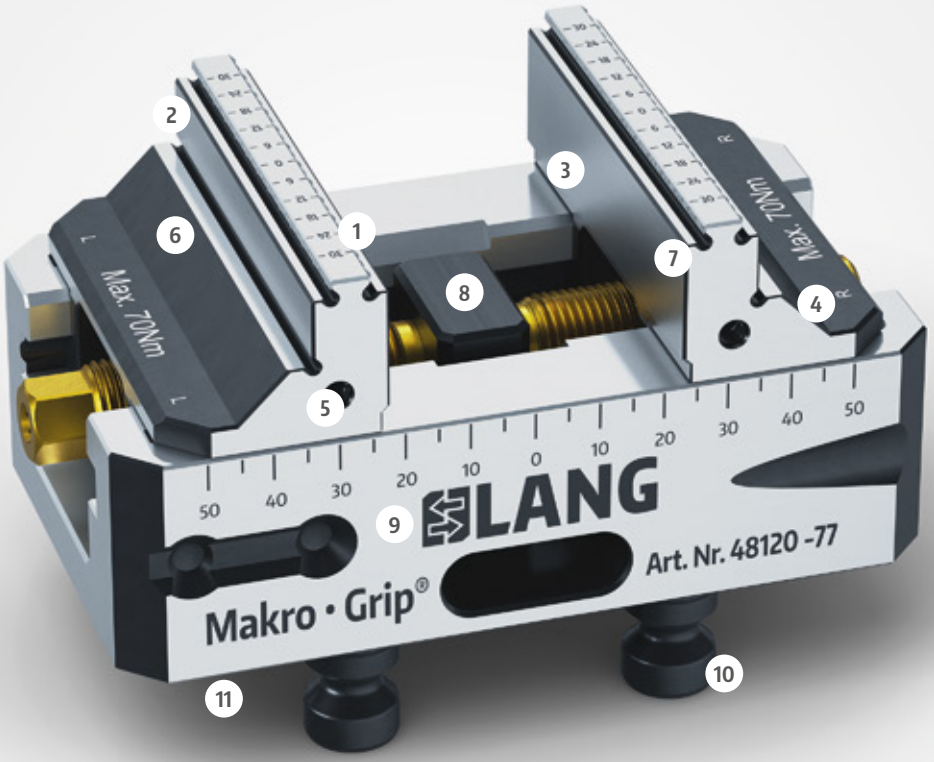
Highest holding forces at lowest clamping pressure due to form-closure clamping

→ Handling

Lightweight construction for ergonomic handling

Makro·Grip® **Technology**

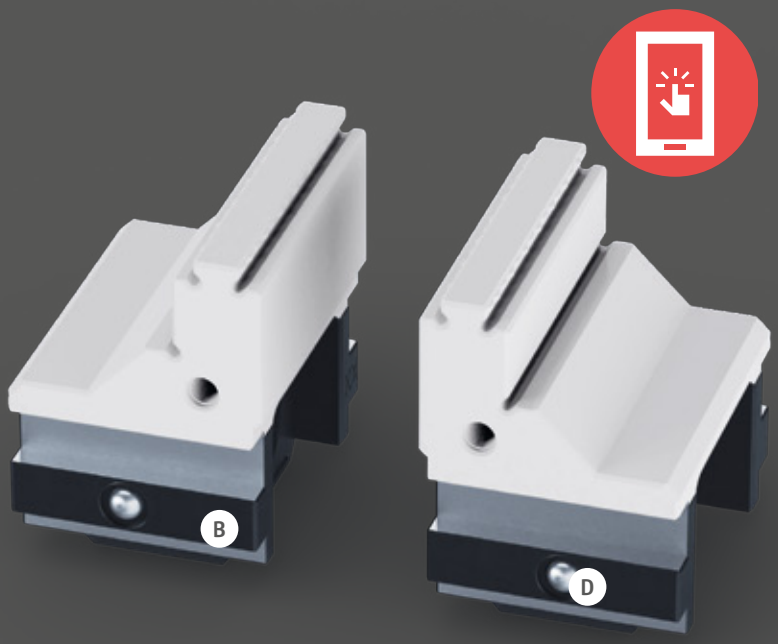
Compact and unmatched holding power for the 5-sided machining of blanks and unfinished parts

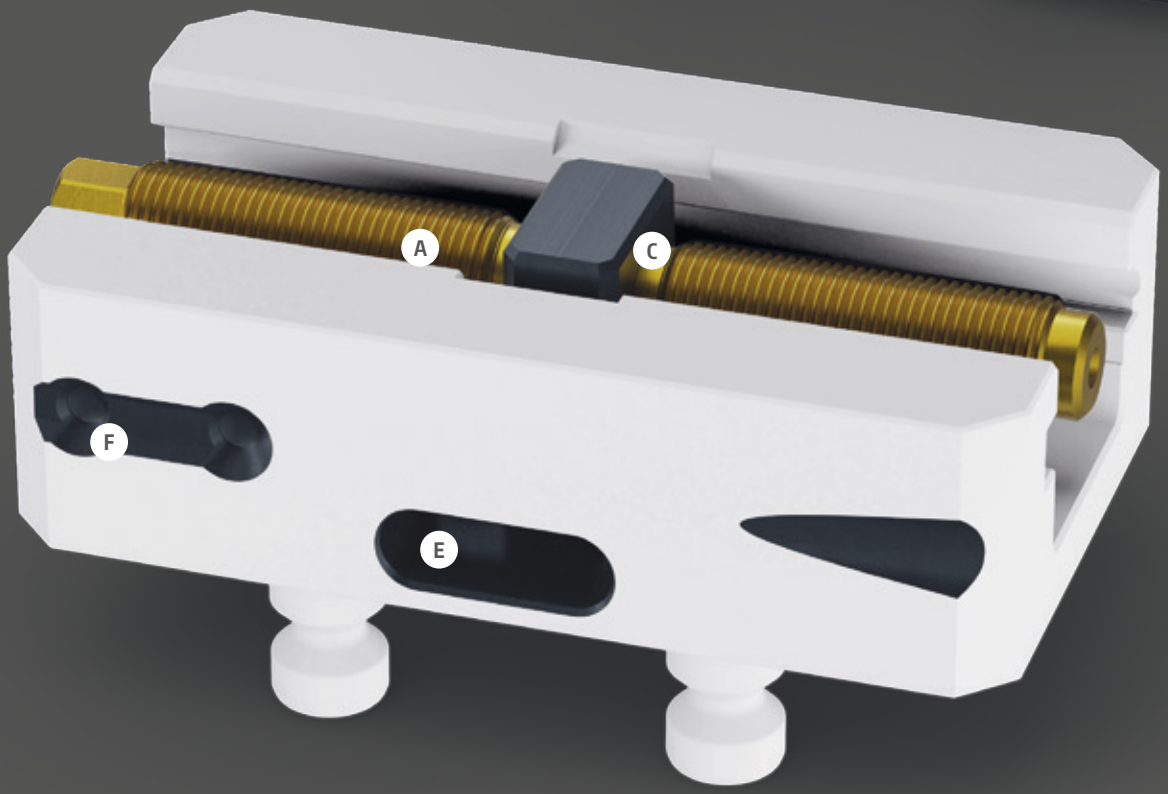


1. Makro·Grip® jaws with double-sided holding teeth contour (same toothing for all types of vices)
2. Additional clamping support for non-stamped parts
3. Special Tungsten-Carbide Coating can be applied on the plain clamping surfaces in order to increase friction when clamping non-stamped parts
4. Clamping jaws milled from solid case-hardened steel for maximum stability
5. Thread for mounting an endstop
6. The patented reversible jaws are changed over within one minute. A larger clamping range is achieved and interferences are eliminated
7. Clamping edge requirement of 3 mm guarantees ideal accessibility for tools and enormous material savings
8. Centring accuracy ± 0.02 mm
9. Rigid and sturdy base for great longevity. All LANG jaw types within the size group can be mounted to this base
10. Integrated with clamping studs for precise clamping in the Quick·Point® zero-point clamping system
11. Additional bores/threads can be drilled in the bottom of the base body to adapt the Makro·Grip® 5-Axis Vice to other zero-point systems

All improvements at a glance:

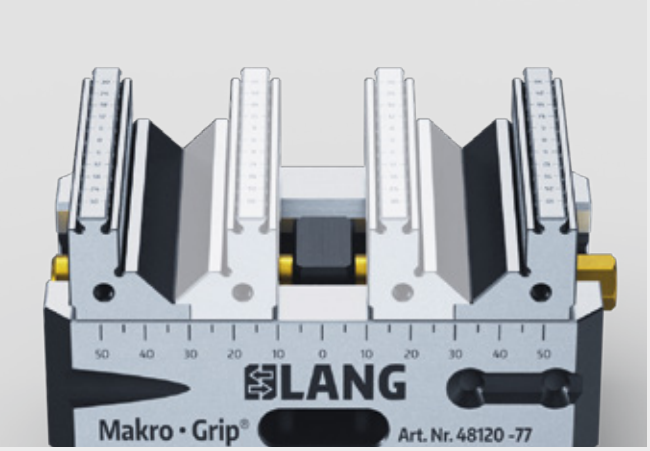
- **A** 5-Axis Vice with 46 mm jaws now has a larger spindle diameter and thread pitch for an increased actuation torque and holding force
- **B** Optimised jaw guide geometry for an increased stiffness
- **C** Encapsulated centre piece





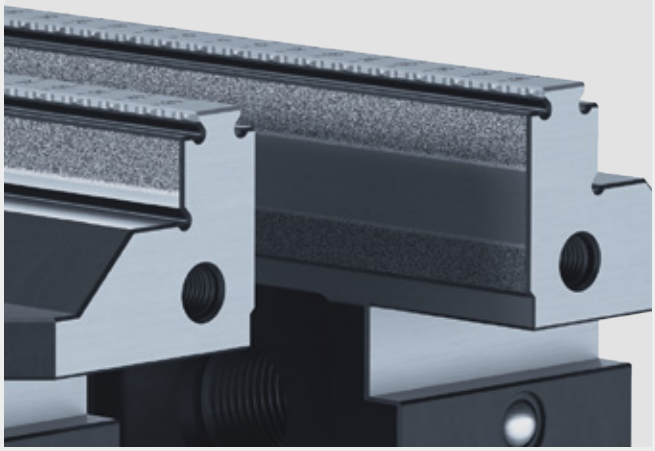
- **D** Better parallelism due to spring loaded jaw guide
- **E** Lateral swarf/coolant drain in the base body
- **F** Gripper grooves for robots

Reversible Jaws

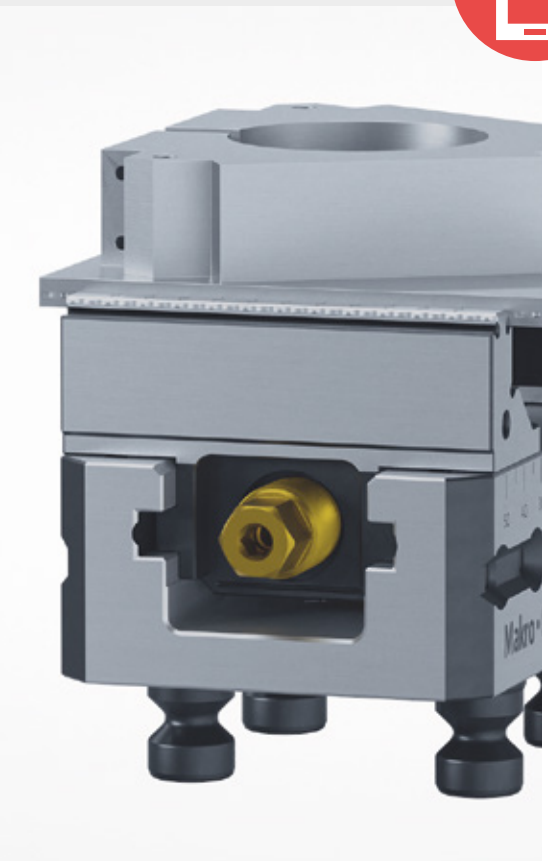


The patented reversible jaws are changed over within one minute. A larger clamping range is achieved and interferences are eliminated.

Tungsten Carbide Coating



A special Tungsten-Carbide Coating can be applied on the plain clamping surfaces of the Makro·Grip® jaws in order to double the friction force when clamping non-stamped parts.



Tip for your benefit:

Maximum efficiency with low resource investment

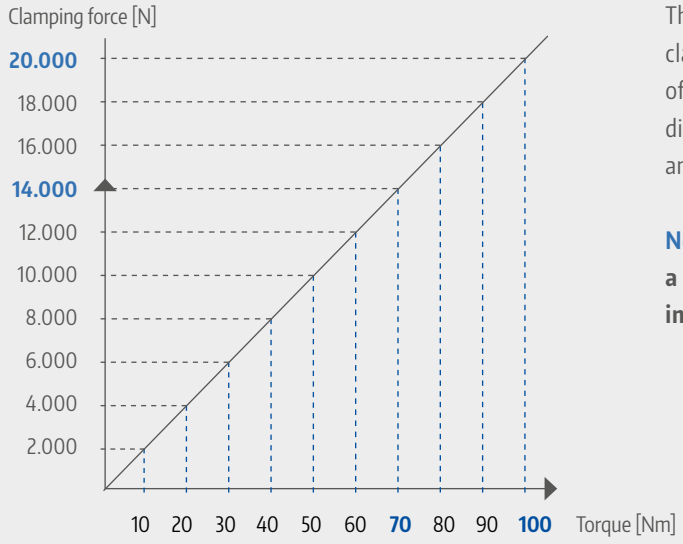
A fitting solution for any challenging clamping task – with only one vice base. Just like with the Quick·Point® zero-point clamping system, modularity and flexibility are key to LANG workholding. All vice types use the same base in different lengths and jaw widths. This guarantees that all jaw types (Makro·Grip®, Avanti, Profilo, Vario·Tec) are interchangeable and compatible to each other.

Where using a side-milling cutter for finishing parts in one operation is not suitable, a vice with an additional set of jaws might still be suffient to finish a part compeletely (e.g. Makro·Grip® 5-Axis Vice + Avanti Base & Top Jaws). You do not necessarily have to invest in two vices.

The interchangeability of the jaws allows you to build a flexible vice fleet regardless of the vice type you start with. Additional jaws can be added at a later time according to demand and application.

Another benefit: Opposed to most conventional vices, whose top jaws are often mounted to the jaw guide, the Makro·Grip® jaws are milled from solid, which results in enormous stability advantages.

Form-closure technology



Thanks to the form-closure technology, workpieces can be securely clamped with low clamping pressure. Deformation and distortion of the material while clamping and releasing is impossible! This diagram highlights the relation between the clamping pressure and the resulting clamping force.

New! All 5-Axis Vices with a jaw width of 46 mm now have a larger spindle diameter (Ø 16 mm) and thread pitch for an increased actuation torque and holding force!

Using the LANG wrenches

Not included in delivery with a 5-Axis Vice, but separately available are two types of wrenches in different sizes. These are meant for pre-adjusting the clamping range, the initial clamping setting and reversing the jaws. You find these wrenches on pages 91 and 97.

Using a torque wrench

For a reliable and safe clamping process, we recommend the use of a conventional torque wrench.

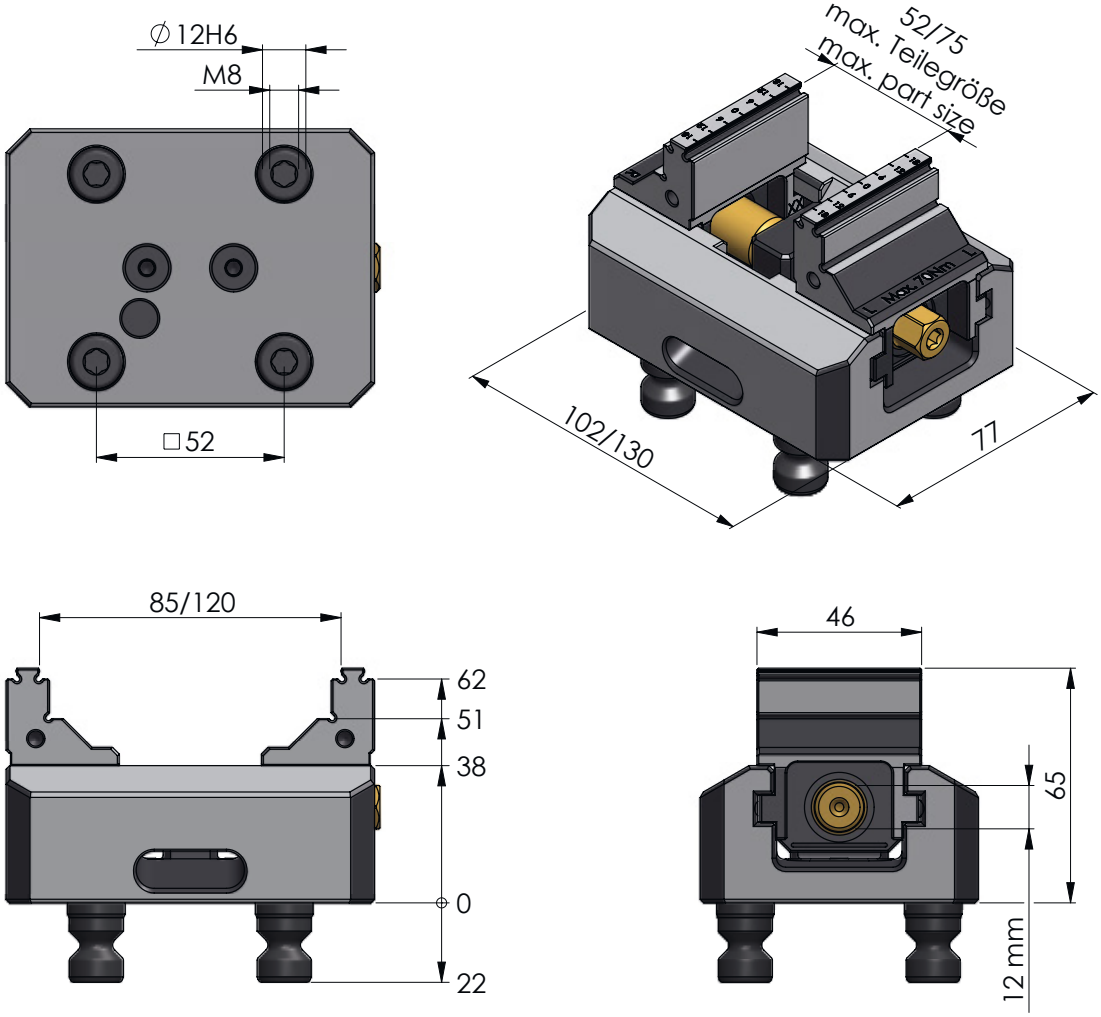
We now offer a hexagon socket for the Makro·Grip® spindle (3/8" square drive, sizes 12 & 15).

Makro·Grip® **5-Axis Vice 77**

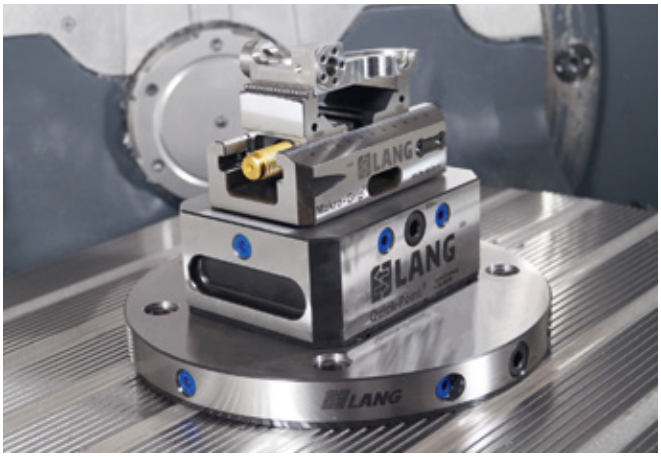
NEW

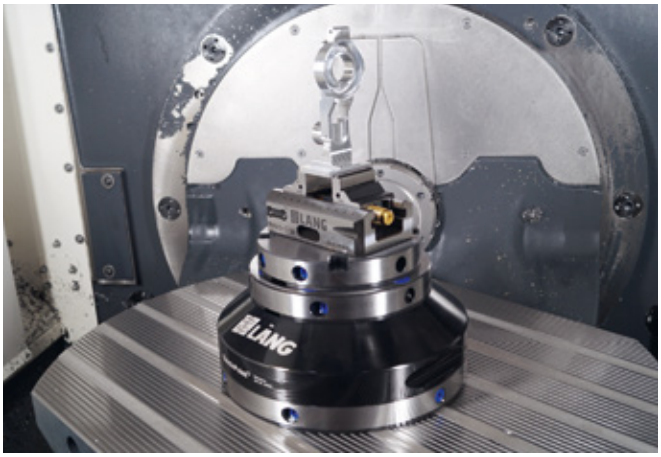
MAKRO·GRIP® 5-AXIS VICE 77, JAW WIDTH 46 MM

ITEM NO.	BASE LENGTH	CLAMPING RANGE	WEIGHT	PRICE
48085-46	102 mm	0 – 85 mm	2.1 kg	
48120-46	130 mm	0 – 120 mm	2.5 kg	



Applications



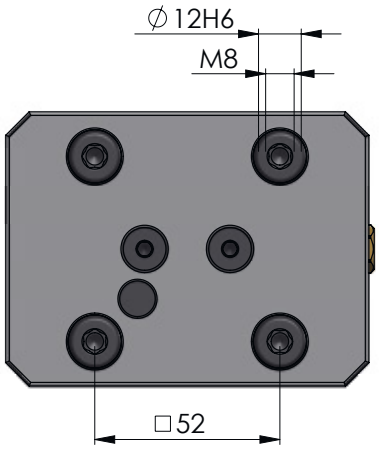


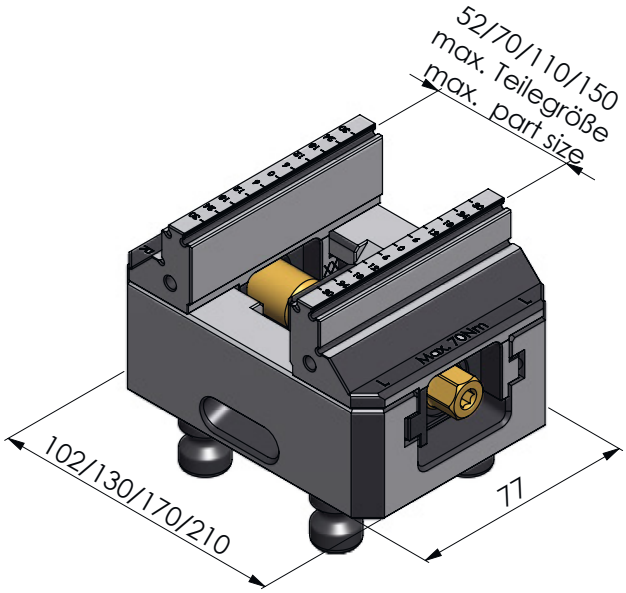
Makro·Grip® **5-Axis Vice 77**

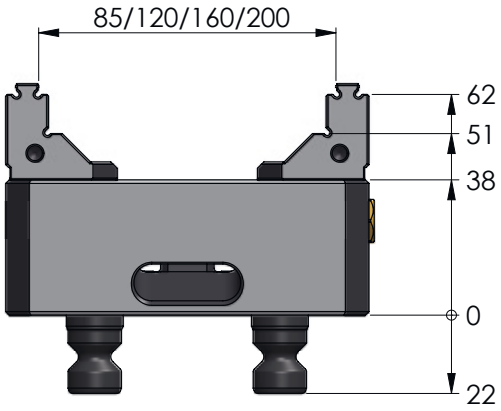
MAKRO·GRIP® 5-AXIS VICE 77, JAW WIDTH 77 MM

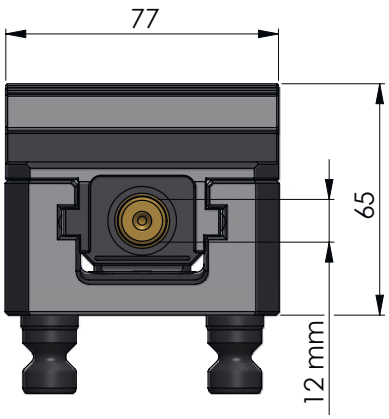
52 | Ø 16 mm | max. 70 Nm | max. 14,000 N | ± 0.02 mm

ITEM NO.	BASE LENGTH	CLAMPING RANGE	WEIGHT	PRICE	COMPARABLE PREVIOUS VERSION
48085-77	102 mm	0 – 85 mm	2.3 kg		47085
48120-77	130 mm	0 – 120 mm	2.9 kg		47120
48160-77	170 mm	0 – 160 mm	3.5 kg		47160
48200-77	210 mm	0 – 200 mm	4.2 kg		47200

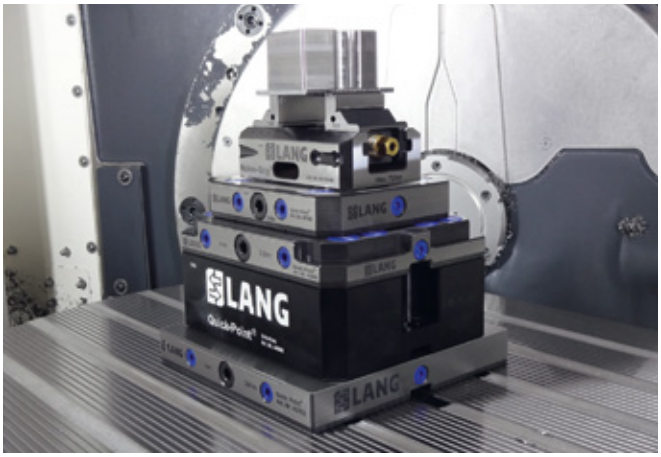


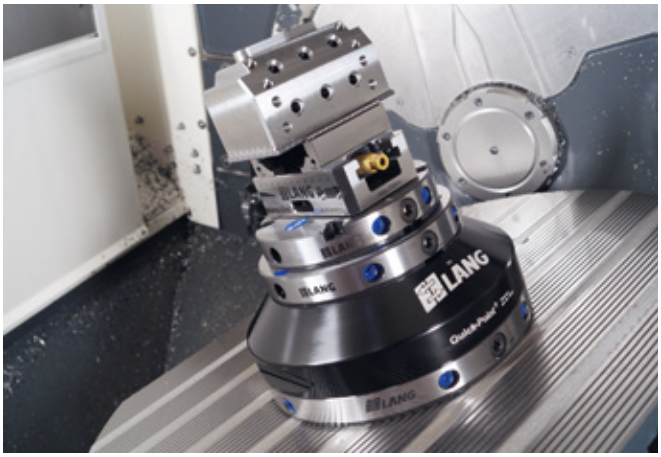






Applications





Makro·Grip® **5-Axis Vice 77**
Available Clamping Jaws

SPARE JAWS FOR MAKRO·GRIP® 5-AXIS VICE 77

ITEM NO.	FOR	WEIGHT	UNIT	PRICE
48085-4620	48085-46	0.5 kg	1 pair	
48077-4620	48120-46	0.5 kg	1 pair	
48085-7720	48085-77	0.7 kg	1 pair	
48077-7720	48120-77 / 48160-77 / 48200-77	0.7 kg	1 pair	

NEW

SPARE JAWS WITHOUT HOLDING TEETH, FOR MAKRO·GRIP® 5-AXIS VICE 77

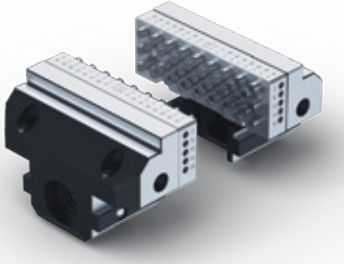
ITEM NO.	FOR	WEIGHT	UNIT	PRICE
48085-4622	48085-46	0.5 kg	1 pair	
48077-4622	48120-46	0.5 kg	1 pair	
48085-7722	48085-77	0.7 kg	1 pair	
48077-7722	48120-77 / 48160-77 / 48200-77	0.7 kg	1 pair	

AVANTI BASE JAWS FOR MAKRO·GRIP® 5-AXIS VICE 77

ITEM NO.	FOR	WEIGHT	UNIT	PRICE
44771-46	48085-46 / 48120-46	0.6 kg	1 pair	
44771-77	48120-77 48160-77 / 48200-77	1.4 kg	1 pair	

PROFILO BASE JAWS FOR MAKRO·GRIP® 5-AXIS VICE 77

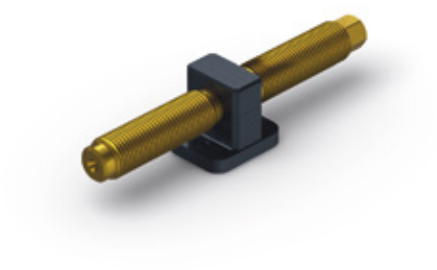
ITEM NO.	FOR	WEIGHT	UNIT	PRICE
49077	all Makro·Grip® 77, jaw width 77 mm	1.6 kg	1 pair	



VARIO·TEC JAWS FOR MAKRO·GRIP® 5-AXIS VICE 77

ITEM NO.	FOR	WEIGHT	UNIT	PRICE
42018-77	48120-77 / 48160-77 / 48200-77	1.2 kg	1 Set (2 pin jaws + 2 carrier jaws)	

Makro·Grip® **5-Axis Vice 77**
Spare Parts and Accessories



SPARE SPINDLE + CENTRE PIECE FOR MAKRO·GRIP® 5-AXIS VICE 77

ITEM NO.	FOR	SPINDLE LENGTH	WEIGHT	PRICE
4877100	48085-46 / 48085-77	100 mm	0.2 kg	
4877135	48120-46 / 48120-77	135 mm	0.3 kg	
4877175	48160-77	175 mm	0.4 kg	
4877215	48200-77	215 mm	0.4 kg	

Threaded spindle with low-wear TIN coating with internal hexagon (size 5) and external hexagon (size 12).

WRENCH FOR MAKRO·GRIP® 5-AXIS VICE 77

ITEM NO.	FOR	SIZE	PRICE
45505	Internal Hexagon	5 mm	
45500	External Hexagon	12 mm	

Wrenches for pre-adjusting the clamping range, initial clamping setting (external hexagon) and reversing the clamping jaws (internal hexagon).

HEXAGON SOCKET

ITEM NO.	SQUARE DRIVE	SIZE	PRICE
45508	3/8"	12 mm	

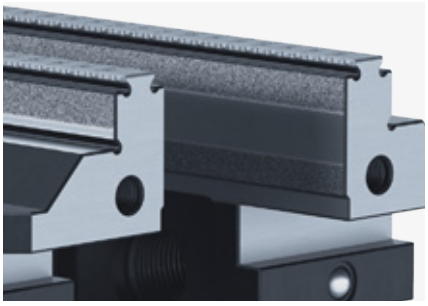
Hexagon Socket (DIN 3120) for a consistent and safe clamping process.

CORDLESS DRILL ATTACHMENT

ITEM NO.	FOR	SIZE	PRICE
47005	Internal Hexagon	5 mm	

The cordless drill attachment is used to achieve centring accuracy of the jaws easier when exchanging them, especially with longer vice bases. You will also speed-up the exchange or reversal of jaws by using the cordless drill attachment.

Service



TUNGSTEN-CARBIDE-COATING FOR MAKRO·GRIP® JAWS

ITEM NO.	JAW WIDTH	QUANTITY	PRICE
45046-17	46 mm	per pair	
45077-17	77 mm	per pair	

A special Tungsten-Carbide-Coating can be applied on the jaws' planar surfaces in order to intensify the friction when clamping non-stamped workpieces.
(Attention: Included in price is only the coating, not the jaws.)

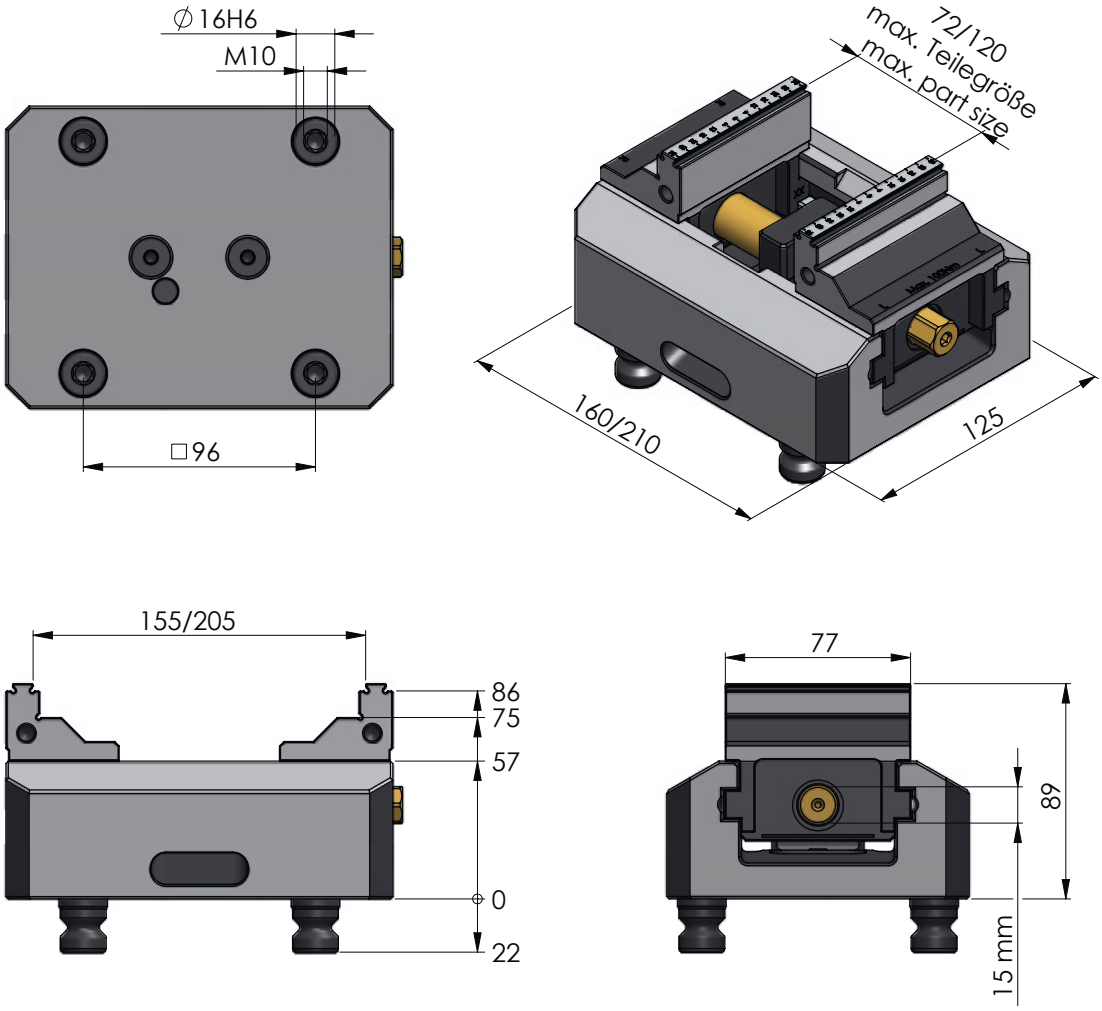
Makro·Grip® **5-Axis Vice 125**

NEW

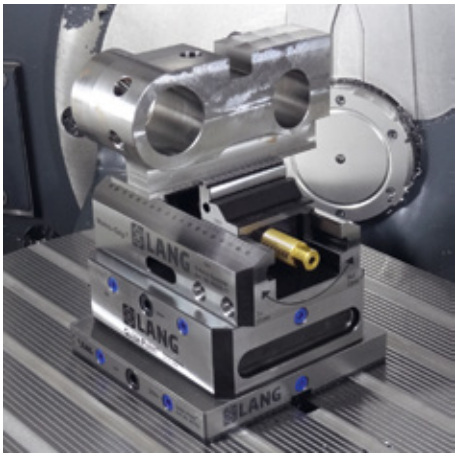
MAKRO·GRIP® 5-AXIS VICE 125, JAW WIDTH 77 MM

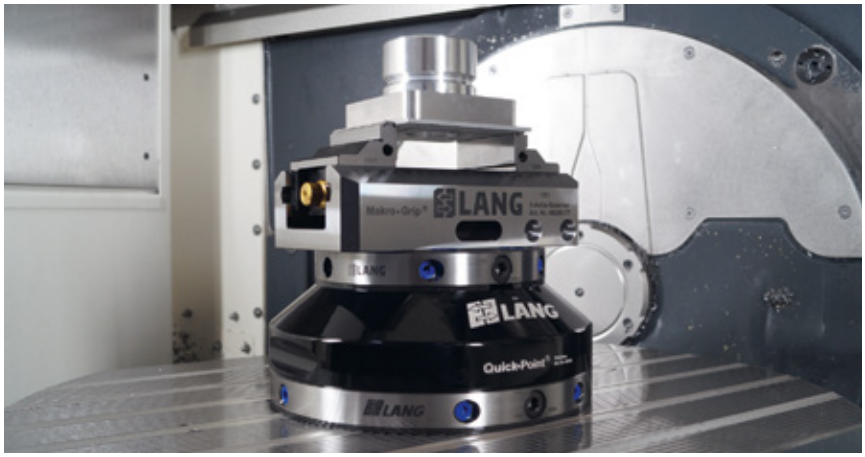
96	Ø 20 mm	max. 100 Nm	max. 20,000 N	± 0.02 mm

ITEM NO.	BASE LENGTH	CLAMPING RANGE	WEIGHT	PRICE
48155-77	160 mm	0 – 155 mm	7.4 kg	
48205-77	210 mm	0 – 205 mm	9.1 kg	



Applications



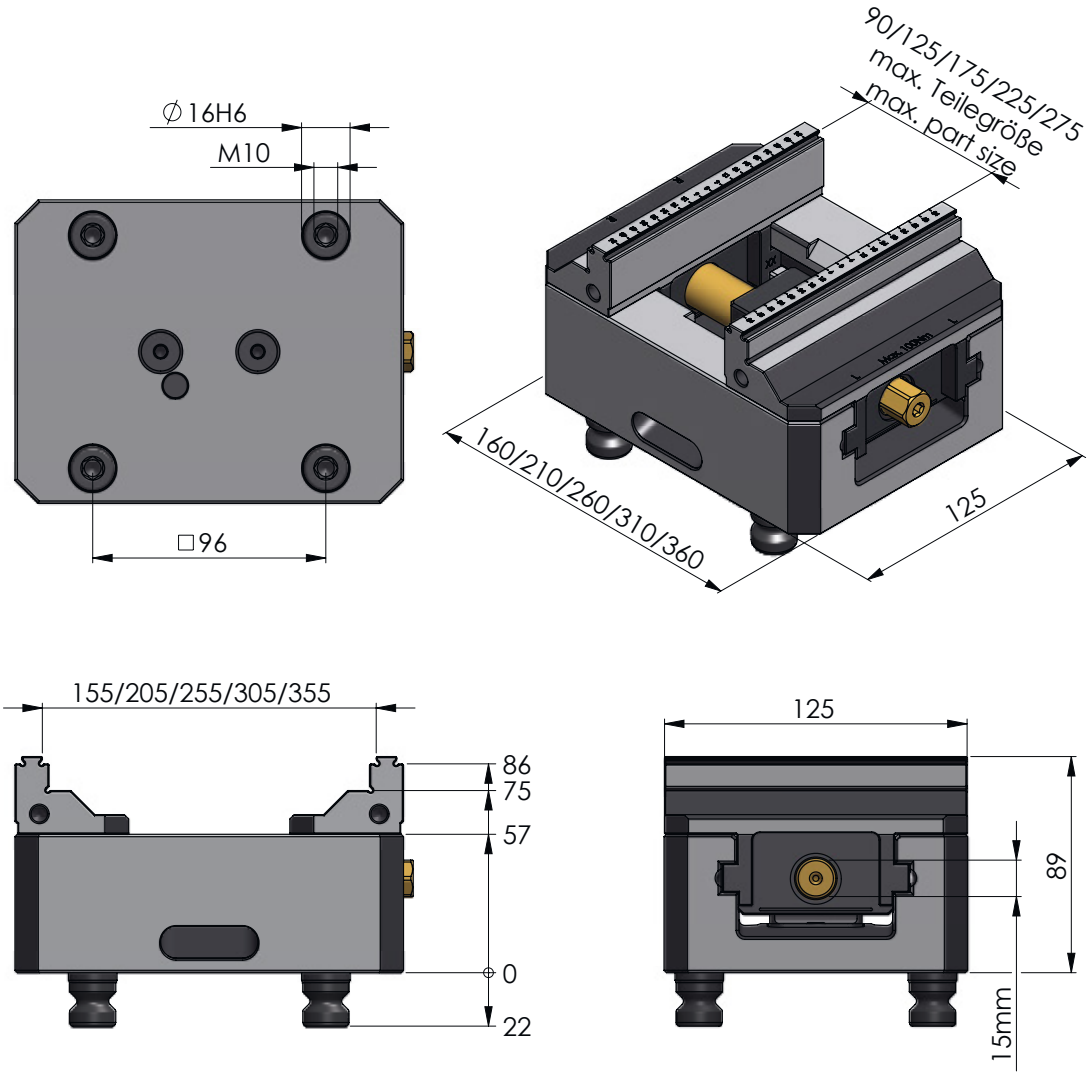


Makro·Grip® **5-Axis Vice 125**

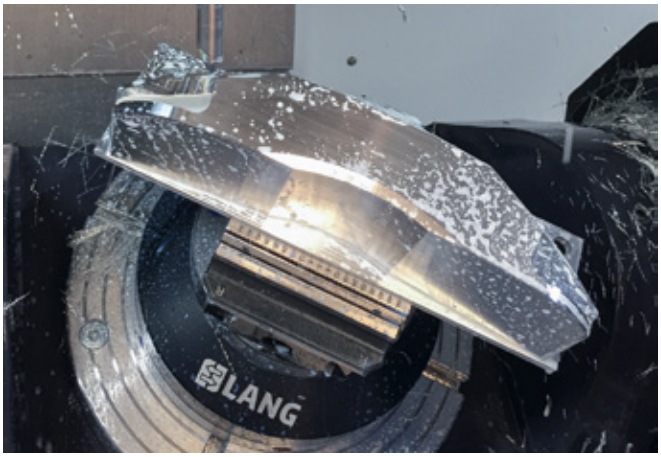
MAKRO·GRIP® 5-AXIS VICE 125, JAW WIDTH 125 MM

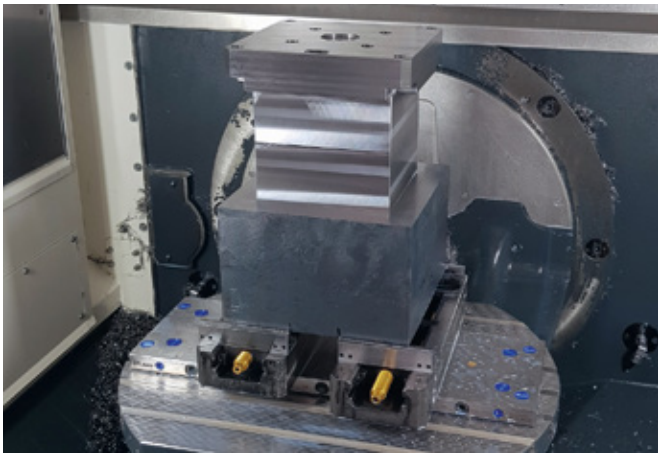
96	Ø 20 mm	max. 100 Nm	max. 20,000 N	± 0.02 mm

ITEM NO.	BASE LENGTH	CLAMPING RANGE	WEIGHT	PRICE	COMPARABLE PREVIOUS VERSION
48155-125	160 mm	0 – 155 mm	8.4 kg		47155
48205-125	210 mm	0 – 205 mm	10.2 kg		47205
48255-125	260 mm	0 – 255 mm	12.1 kg		47255
48305-125	310 mm	0 – 305 mm	14.0 kg		47305
48355-125	360 mm	0 – 355 mm	15.9 kg		47355



Applications





Makro·Grip® **5-Axis Vice 125**
Available Clamping Jaws

SPARE JAWS FOR MAKRO·GRIP® 5-AXIS VICE 125

ITEM NO.	FOR	WEIGHT	UNIT	PRICE
48125-7720	all Makro·Grip® 125, jaw width 77 mm	2.0 kg	1 pair	
48125-2520	all Makro·Grip® 125, jaw width 125 mm	2.6 kg	1 pair	

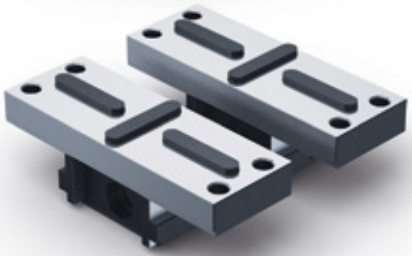
NEW

SPARE JAWS WITHOUT HOLDING TEETH, FOR MAKRO·GRIP® 5-AXIS VICE 125

ITEM NO.	FOR	WEIGHT	UNIT	PRICE
48125-7722	all Makro·Grip® 125, jaw width 77 mm	2.0 kg	1 pair	
48125-2522	all Makro·Grip® 125, jaw width 125 mm	2.6 kg	1 pair	

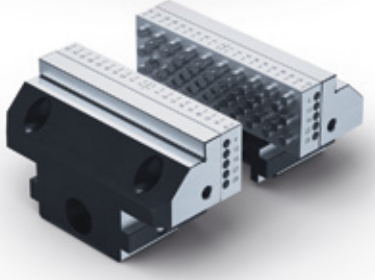
AVANTI BASE JAWS FOR MAKRO·GRIP® 5-AXIS VICE 125

ITEM NO.	FOR	WEIGHT	UNIT	PRICE
44251-125	all Makro·Grip® 125, jaw width 125 mm	3.7 kg	1 pair	



PROFILO BASE JAWS FOR MAKRO·GRIP® 5-AXIS VICE 125

ITEM NO.	FOR	WEIGHT	UNIT	PRICE
49125	all Makro·Grip® 125, jaw width 125 mm	4.3 kg	1 pair	

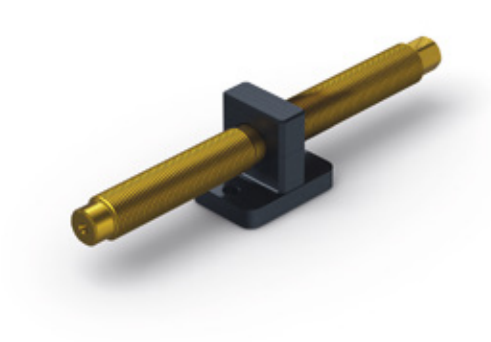


VARIO·TEC JAWS FOR MAKRO·GRIP® 5-AXIS VICE 125

ITEM NO.	FOR	WEIGHT	UNIT	PRICE
42018-125	all Makro·Grip® 125, jaw width 125 mm	4.7 kg	1 Set (2 pin jaws + 2 carrier jaws)	

Spare jaws and parts are still available for previous vice versions (page 138/139)

Makro·Grip® **5-Axis Vice 125**
Spare Parts and Accessories



SPARE SPINDLE + CENTRE PIECE FOR MAKRO·GRIP® 5-AXIS VICE 125

ITEM NO.	FOR	SPINDLE LENGTH	WEIGHT	PRICE
4825164	48155-77 / 48155-125	164 mm	0.7 kg	
4825214	48205-77 / 48205-125	214 mm	0.7 kg	
4825264	48255-125	264 mm	0.9 kg	
4825314	48305-125	314 mm	1.0 kg	
4825364	48355-125	364 mm	1.1 kg	

Threaded spindle with low-wear TIN coating with internal hexagon (size 5) and external hexagon (size 15)

WRENCH FOR MAKRO·GRIP® 5-AXIS VICE 125

ITEM NO.	FOR	SIZE	PRICE
45505	Internal Hexagon	5 mm	
45501	External Hexagon	15 mm	

Wrenches for pre-adjusting the clamping range, initial clamping setting (external hexagon) and reversing the clamping jaws (internal hexagon).

HEXAGON SOCKET

ITEM NO.	SQUARE DRIVE	SIZE	PRICE
45509	3/8"	15 mm	

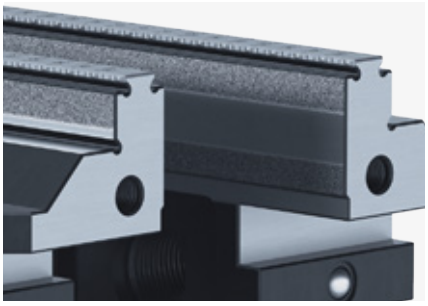
Hexagon Socket (DIN 3120) for a consistent and safe clamping process.

CORDLESS DRILL ATTACHMENT

ITEM NO.	FOR	SIZE	PRICE
47005	Internal Hexagon	5 mm	

The cordless drill attachment is used to achieve centring accuracy of the jaws easier when exchanging them, especially with longer vice bases. You will also speed-up the exchange or reversal of jaws by using the cordless drill attachment.

Service

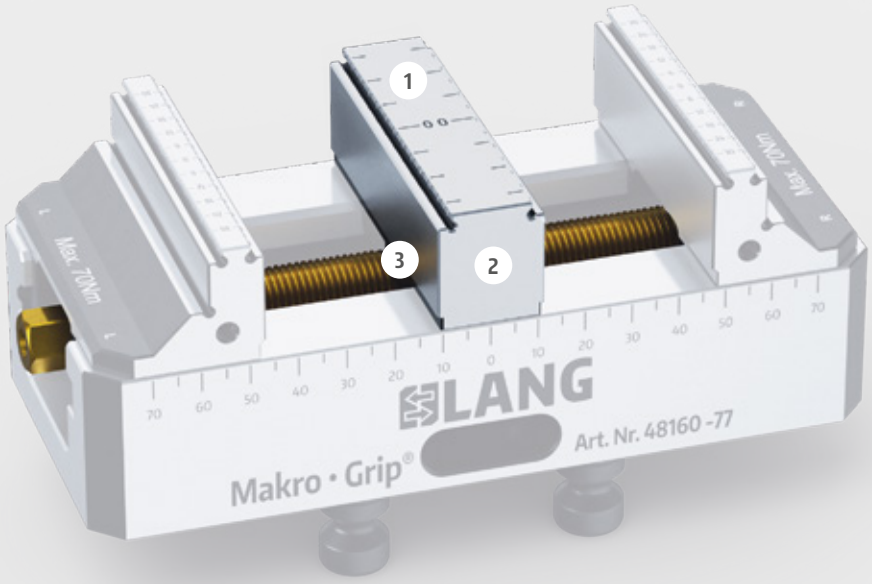


TUNGSTEN-CARBIDE-COATING FOR MAKRO·GRIP® JAWS

ITEM NO.	JAW WIDTH	QUANTITY	PRICE
45077-17	77 mm	per pair	
45125-17	125 mm	per pair	

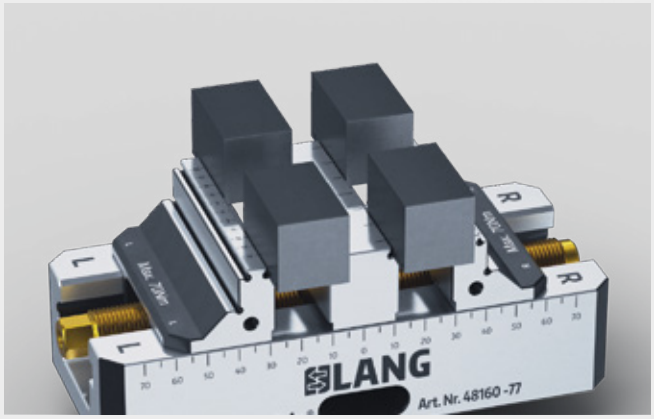
A special Tungsten-Carbide-Coating can be applied on the jaws' planar surfaces in order to intensify the friction when clamping non-stamped workpieces.
(Attention: Included in price is only the coating, not the jaws.)

Makro·Grip® **Dual Clamping Vice –** Retrofitting Kit for 5-Axis Vices

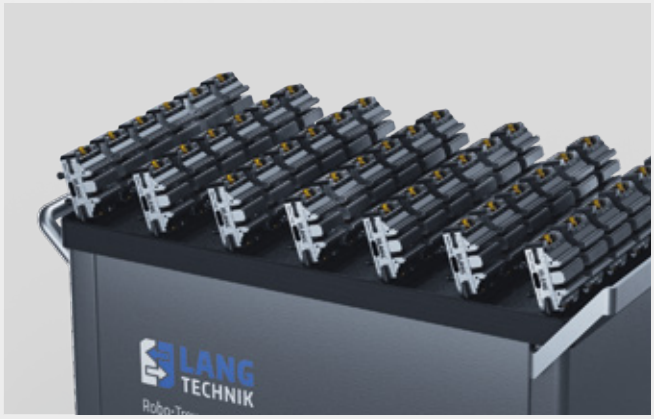


Please read all about the Makro·Grip® 5-Axis Vice's features on page 82.

1. Scope of delivery: Centre jaw with double-sided holding tooth contour and threaded spindle
2. Different widths of centre jaw
3. Conception of the centre piece allows to clamp workpieces with 2 mm variance in length (cutting tolerance)

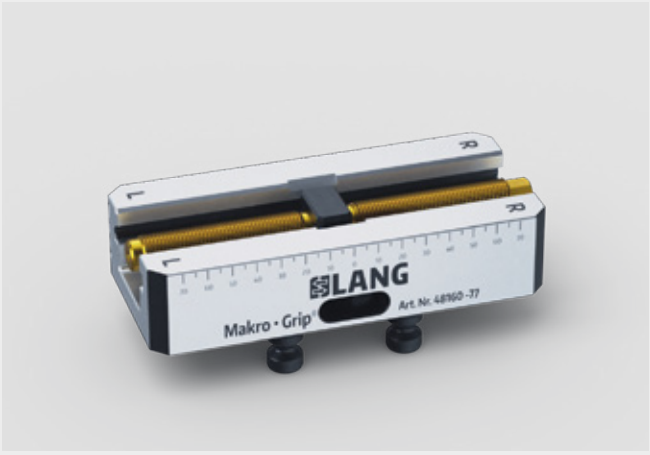


Depending on the part size the operator might be able to clamp 4 parts in one vice at the same time and thus increase spindle run times.



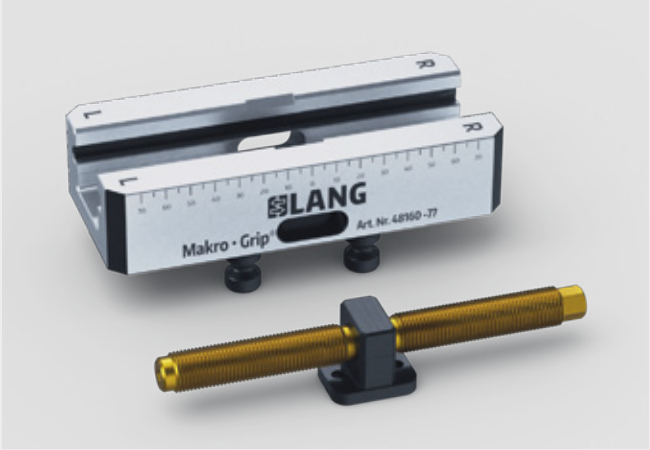
The centre jaw can now also be mounted to the Makro·Grip® 5-Axis Vice for Robo-Trex automation. This increases the capacity of the automation system significantly.

Transform your Makro·Grip® 5-Axis Vice into a Dual Clamping Vice

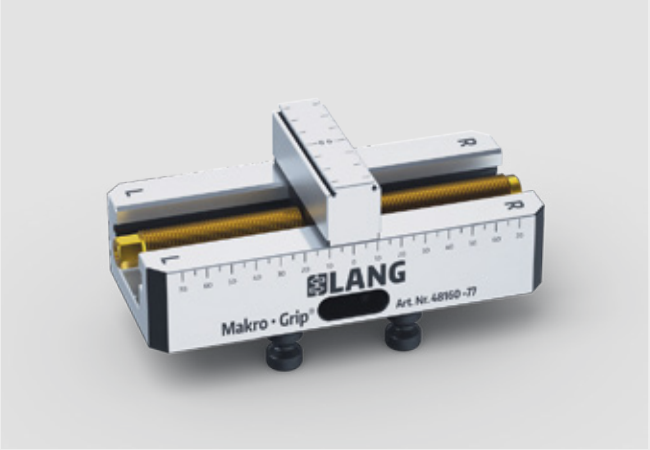


Unscrew the Makro·Grip® jaws from the base using a hexagon wrench (internal 5 mm).

Flip base and remove the two screws.



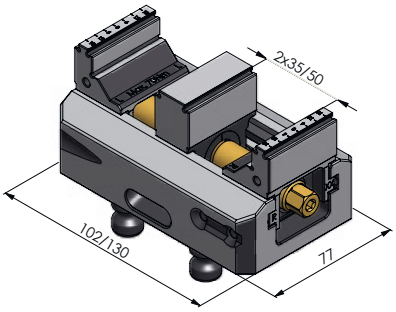
Remove spindle and centre piece.

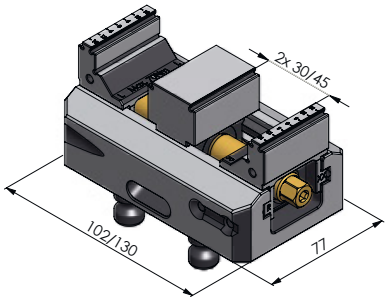


Insert centre jaw and spindle and tighten the screws on the bottom side.

Assemble the Makro·Grip® jaws back onto the base. You are now able to use your Makro·Grip® 5-Axis Vice as a dual vice.

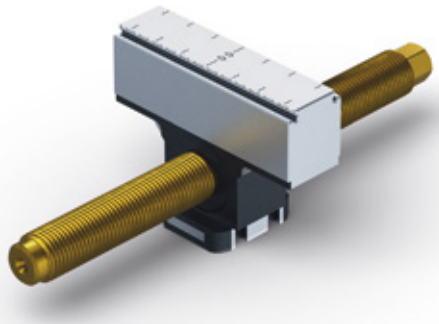
Makro·Grip® **5-Axis Vice 77**
Centre Jaw and Spindle

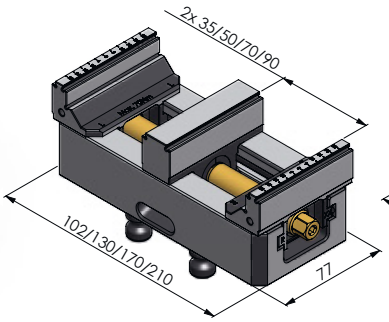


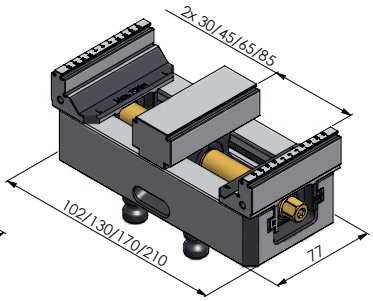


CENTRE JAW AND SPINDLE FOR MAKRO·GRIP® 5-AXIS VICE 77, JAW WIDTH 46 MM

ITEM NO.	FOR MAKRO·GRIP®	CENTRE JAW WIDTH	SPINDLE LENGTH	CLAMPING RANGE	PRICE
48085-TG4617	48085-46	17 mm	100 mm	2 × 35 mm	
48085-TG4627	48085-46	27 mm	100 mm	2 × 30 mm	
48120-TG4617	48120-46	17 mm	135 mm	2 × 50 mm	
48120-TG4627	48120-46	27 mm	135 mm	2 × 45 mm	





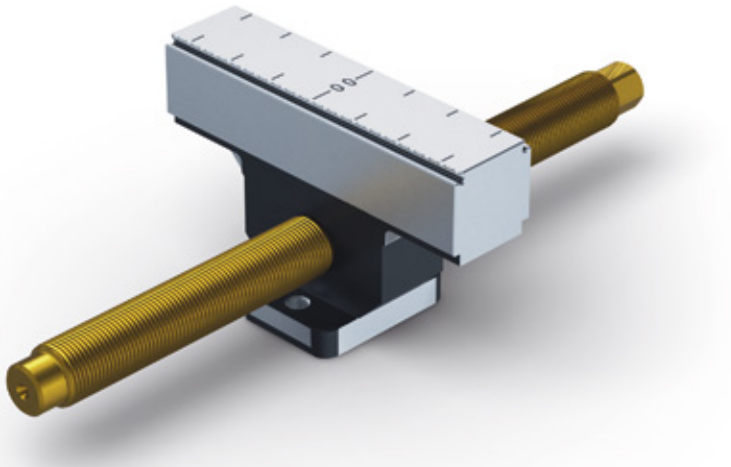


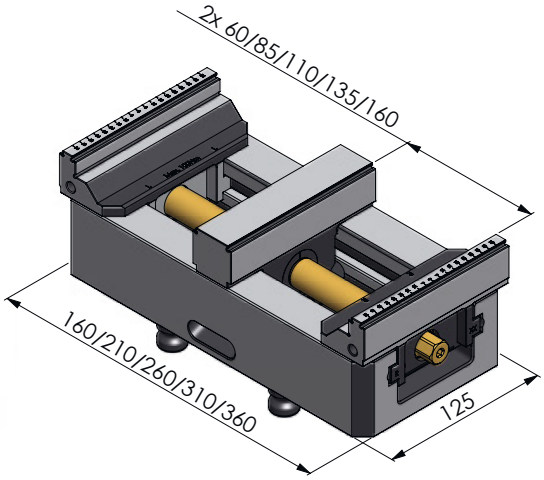
CENTRE JAW AND SPINDLE FOR MAKRO·GRIP® 5-AXIS VICE 77, JAW WIDTH 77 MM

ITEM NO.	FOR MAKRO·GRIP®	CENTRE JAW WIDTH	SPINDLE LENGTH	CLAMPING RANGE	PRICE
48085-TG7717	48085-77	17 mm	100 mm	2 × 35 mm	
48085-TG7727	48085-77	27 mm	100 mm	2 × 30 mm	
48120-TG7717	48120-77	17 mm	135 mm	2 × 50 mm	
48120-TG7727	48120-77	27 mm	135 mm	2 × 45 mm	
48160-TG7717	48160-77	17 mm	175 mm	2 × 70 mm	
48160-TG7727	48160-77	27 mm	175 mm	2 × 65 mm	
48200-TG7717	48200-77	17 mm	215 mm	2 × 90 mm	
48200-TG7727	48200-77	27 mm	215 mm	2 × 85 mm	

Centre jaws are still available for previous versions (page 139).

Makro·Grip® **5-Axis Vice 125**
Centre Jaw and Spindle

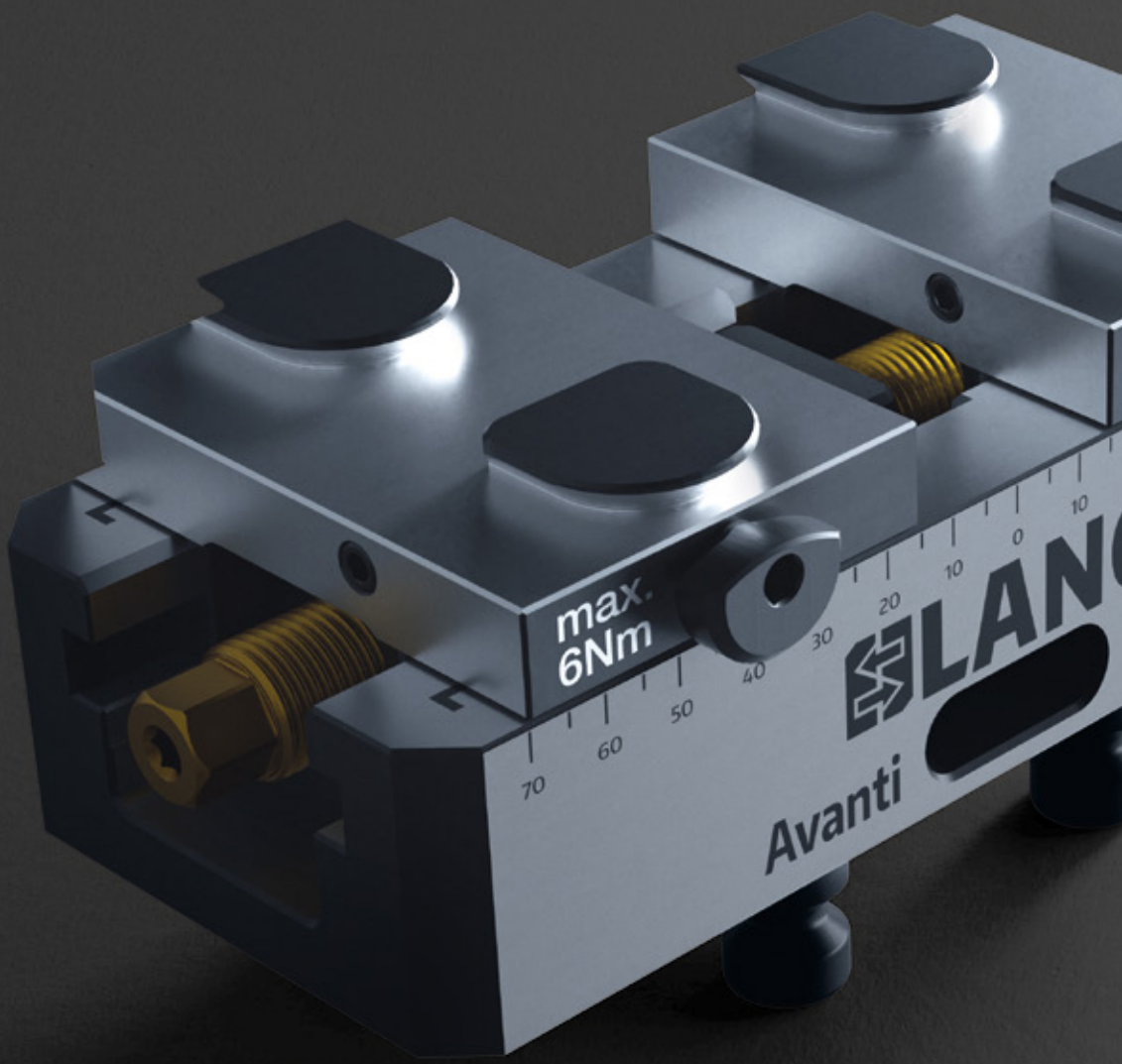




CENTRE JAW AND SPINDLE FOR MAKRO·GRIP® 5-AXIS VICE 125, JAW WIDTH 125 MM

ITEM NO.	FOR MAKRO·GRIP	CENTRE JAW WIDTH	SPINDLE LENGTH	CLAMPING RANGE	PRICE
48155-TG2527	48155-125	27 mm	164 mm	2 × 60 mm	
48205-TG2527	48205-125	27 mm	214 mm	2 × 85 mm	
48255-TG2527	48255-125	27 mm	264 mm	2 × 110 mm	
48305-TG2527	48305-125	27 mm	314 mm	2 × 135 mm	
48355-TG2527	48355-125	27 mm	364 mm	2 × 160 mm	

Centre jaws are still available for previous versions (page 139).


max.
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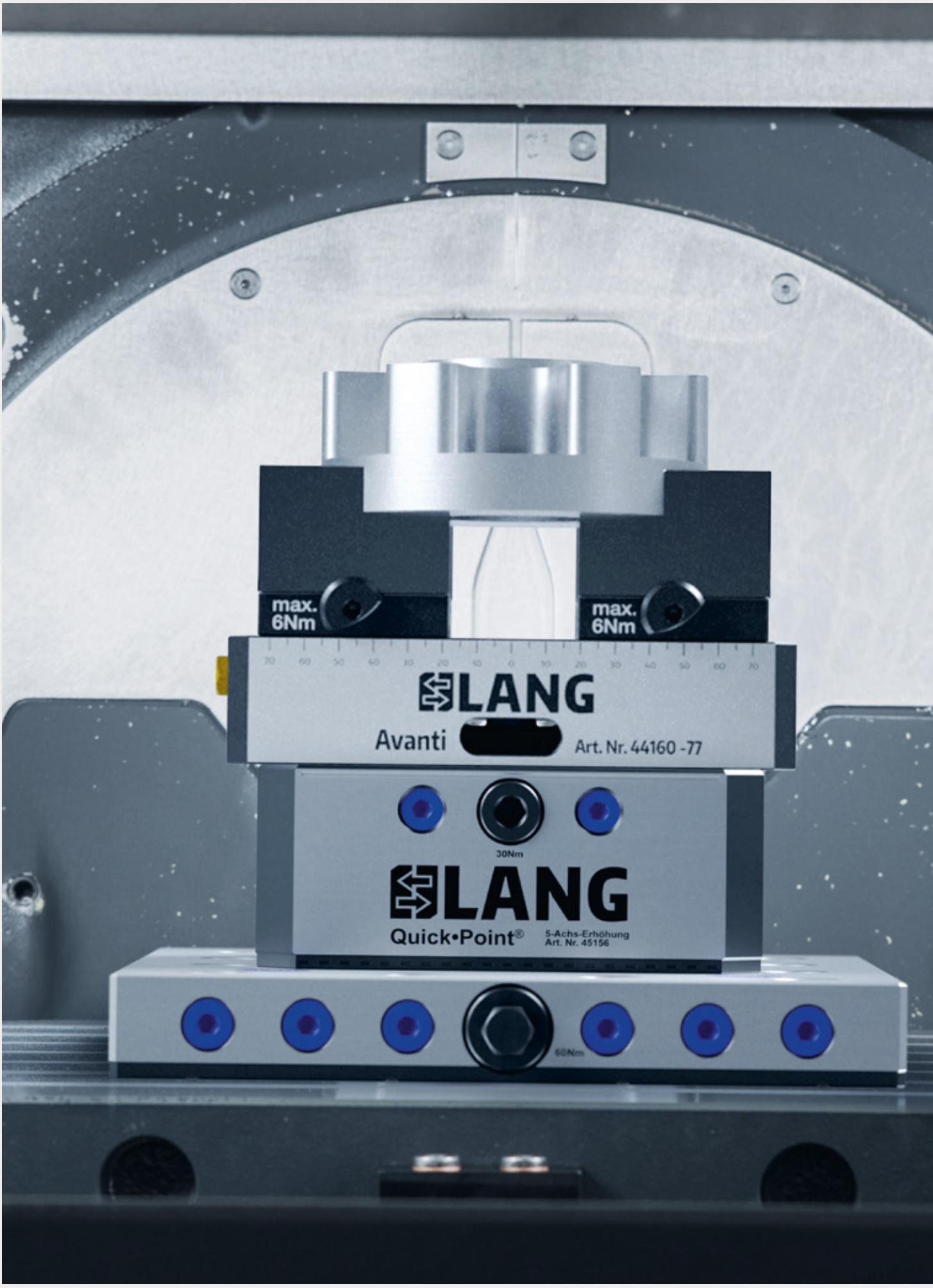
Avanti

CONVENTIONAL WORKHOLDING

CONTENTS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Art. Nr. 44160 -77
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Quick•Point®
5-Achs-Erhöhung
Art. Nr. 45156
60Nm

Conventional Workholding

While the strengths of Makro·Grip stamping technology with its 5-Axis Vices are mainly seen in the processing of unmachined parts, clamping devices of the "Conventional Workholding" category offer multitude options for smooth clamping of round or shaped components. All "Conventional Workholding" vice components use the same base body as the Makro·Grip® 5-Axis Vice, are compatible and interchangeable. Different jaw types of "Conventional Workholding" are perfectly suited for the demanding machining of the 6th side and expand clamping possibilities in order to completely machine a workpiece.

→ Flexibility

One vice body for all jaw types

→ Versatility

Suitable for almost any clamping task in milling

→ Setup Time Reduction

Fast jaw change over a variety of clamping configurations

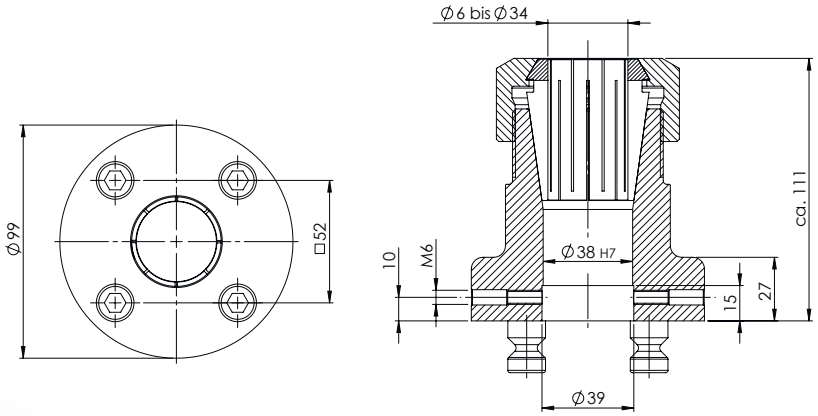
Preci·Point **Collet Chuck**

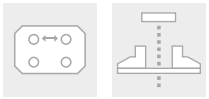
The new collet chuck with ideal accessibility for milling round parts

NEW

1. Commercial collet ER 50 for Ø 6 – 34 mm
2. M6 tapped hole to use an endstop
3. Robust, case-hardened and coated base body
4. Integrated with clamping studs for precise clamping in the Quick·Point® zero-point clamping system

Preci·Point **Collet Chuck**





PRECI·POINT COLLET CHUCK

ITEM NO.	DIMENSIONS	WEIGHT	PRICE
41052	Ø 99 × 111 mm	3.0 kg	

Included: 4 × Quick·Point® clamping studs Ø 16 mm and screwcap.

Collets for ER 50

PRECI·POINT COLLETS (DIN 6499-B / ISO 15488)

ITEM NO.	MAX. CLAMPING RANGE	PRICE
41000-06 to 41000-34	Ø 6 bis Ø 34	

The collets are available in 1 mm steps for Ø 6 to Ø 34 mm.
The extension of the item number refers to the max. clamping range of the collet.
Example: Collet with max. Ø 20 mm has the item number 41000-20.
Clamping range: – 1,0 mm

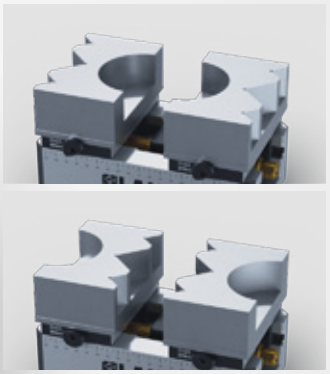
Clamping Wrench for ER 50

PRECI·POINT CLAMPING WRENCH

ITEM NO.	PRICE
41052-03	

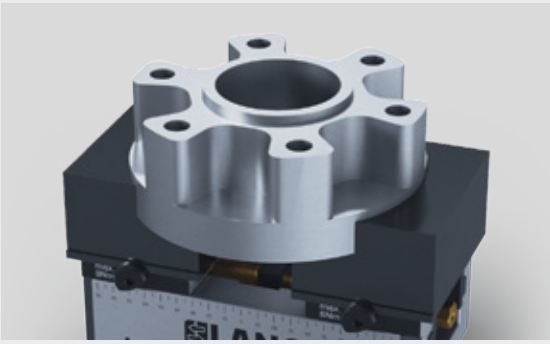
Avanti **Technology**

The universal vice with great handling characteristics and unbeatable add-on jaw prices!



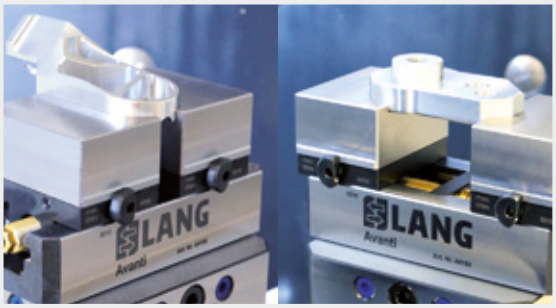
Large-volume steel or aluminium add-on jaw allows contours to be added on both sides of the jaws to use it for two different clamping applications.

1. Precise positioning of jaws thanks to patented clamping interface
2. Centring accuracy ± 0.02 mm
3. Double guided jaws
4. Integrated with clamping studs for precise clamping in the Quick·Point® zero-point clamping system
5. Add-on jaws available in steel or aluminium
6. Changing the jaws rapidly with only one screw (internal hexagon 5 mm)
7. Rigid and sturdy base – but still lightweight and handy



If the maximum clamping diameter (Ø 34 mm) of the Preci·Point Collet Chuck is not enough, the Avanti vice is a great choice to clamp round stock with a larger diameter. There is also a chance to customise add-on jaws with more height through our customising department (see page 136).

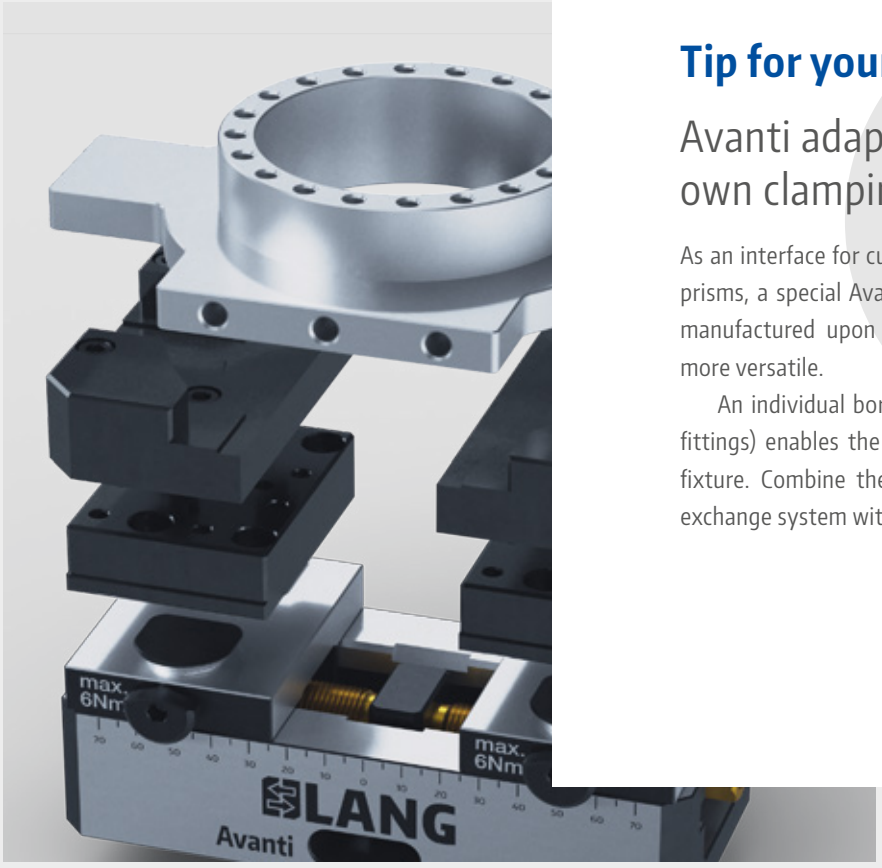
Avanti Quick Jaw Exchange System applications



Independent from the alignment of the workpiece a great variety of profiles can be clamped for best accessibility with the patented quick jaw exchange system. By adding contours on both sides of the jaws and through their maximum usable volume add-on jaws can be used twice.

How to prepare add-on jaws:
In order to get the best results when machining with the Avanti we recommend you simulate the future clamping setup as accurately as possible.

We suggest clamping a precision block at maximum torque between the top jaws while machining the workpiece contour into the add-on jaws.



Tip for your benefit:

Avanti adaptor jaw to use own clamping fixtures

As an interface for customised clamping fixtures such as prisms, a special Avanti adaptor jaw can be offered and manufactured upon request, making the system even more versatile.

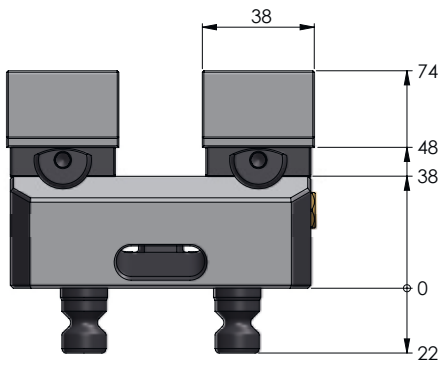
An individual borehole pattern (e.g. tapped holes or fittings) enables the simple assembly of your clamping fixture. Combine the benefits of the Avanti quick jaw exchange system with your own fixtures!

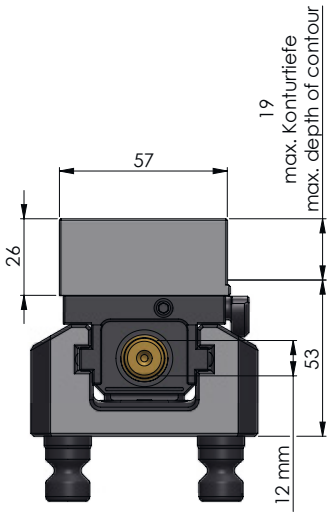
Avanti **77**

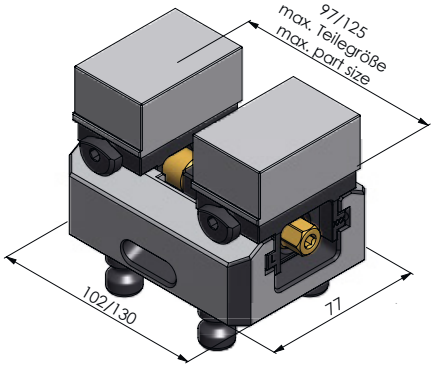
AVANTI 77, JAW WIDTH 46 MM

ITEM NO.	BASE LENGTH	MAX. CLAMPING RANGE	WEIGHT	PRICE	COMPARABLE PREVIOUS VERSION
44085-46	102 mm	97 mm	2.2 kg		44065
44120-46*	130 mm	125 mm	2.6 kg		44105

*automatable



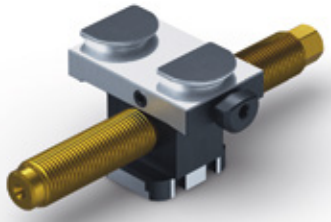


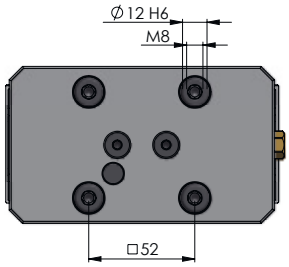


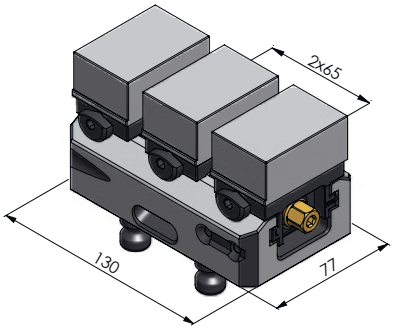
AVANTI 77 BASE JAWS, JAW WIDTH 46 MM

ITEM NO.	DIMENSIONS	WEIGHT	UNIT	PRICE	COMPARABLE PREVIOUS VERSION
44771-46	55 × 36 mm	0.6 kg	1 pair		44461

NEW







CENTRE BASE JAW + SPINDLE FOR AVANTI 77, JAW WIDTH 46 MM

ITEM NO.	SPINDLE LENGTH (+Ø)	FOR AVANTI	WEIGHT	PRICE
44120-TG46	135 mm (Ø 16 mm)	44120-46	0.5 kg	

AVANTI 46 ADD-ON JAWS, SOFT

ITEM NO.	MATERIAL	DIMENSIONS	WEIGHT	UNIT	PRICE
44468-26	Steel (16MnCr5)	57 × 38 × 26 mm	0.6 kg	1 pc.	
44469-26	Aluminium (F50)	57 × 38 × 26 mm	0.2 kg	1 pc.	

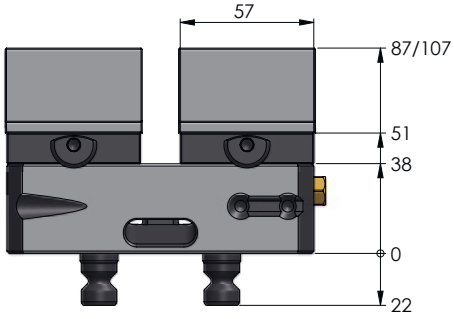
Add-on jaws fit the new base jaw version and also the previous one.

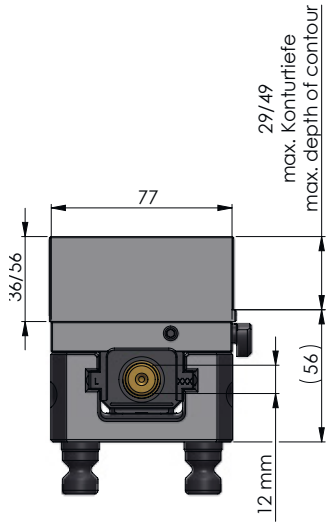
Avanti **77**

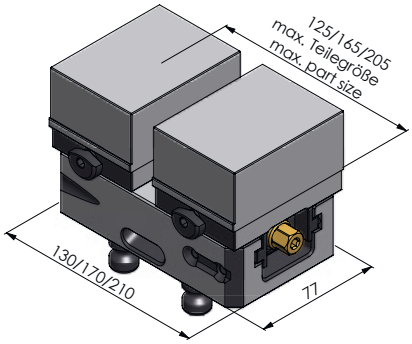
AVANTI 77, JAW WIDTH 77 MM

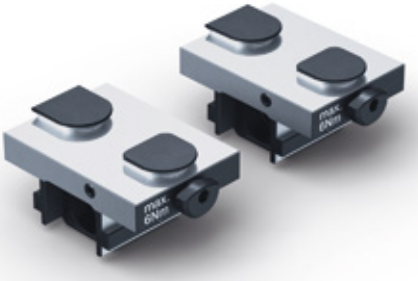
ITEM NO.	BASE LENGTH	MAX. CLAMPING RANGE	WEIGHT	PRICE	COMPARABLE PREVIOUS VERSION
44120-77*	130 mm	125 mm	3.5 kg		44120
44160-77	170 mm	165 mm	4.2 kg		44160
44200-77	210 mm	205 mm	4.8 kg		44200

*automatable





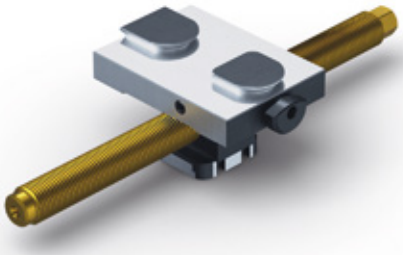


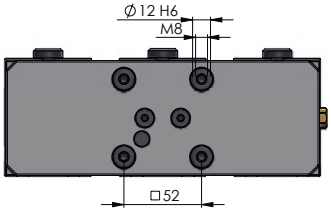


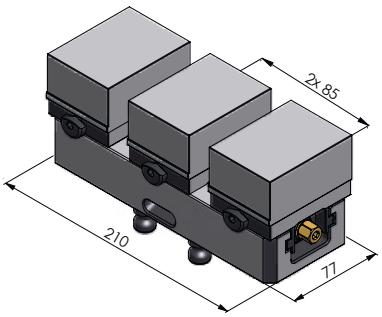
AVANTI 77 BASE JAWS, JAW WIDTH 77 MM

ITEM NO.	DIMENSIONS	WEIGHT	UNIT	PRICE	COMPARABLE PREVIOUS VERSION
44771-77	77 × 57 mm	1.4 kg	1 pair		44771

NEW







CENTRE BASE JAW + SPINDLE FOR AVANTI 77, JAW WIDTH 77 MM

ITEM NO.	SPINDLE LENGTH (+Ø)	FOR AVANTI	WEIGHT	PRICE
44200-TG77	215 mm (Ø 16 mm)	44200-77	0.9 kg	

AVANTI 77 ADD-ON JAWS, SOFT

ITEM NO.	MATERIAL	DIMENSIONS	WEIGHT	UNIT	PRICE
44778-36	Steel (16MnCr5)	78 × 58 × 36 mm	0.6 kg	1 pc.	
44779-36	Aluminium (F50)	78 × 58 × 36 mm	0.2 kg	1 pc.	
44778-56	Steel (16MnCr5)	78 × 58 × 56 mm	0.9 kg	1 pc.	
44779-56	Aluminium (F50)	78 × 58 × 56 mm	0.3 kg	1 pc.	

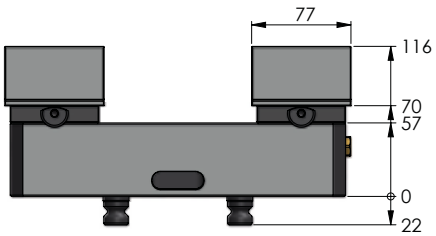
Add-on jaws fit the new base jaw version and also the previous one.

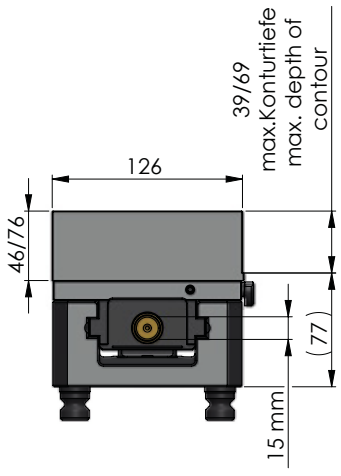
Avanti **125**

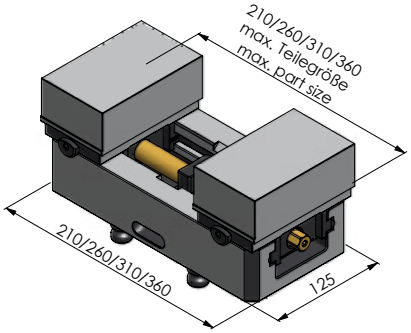
AVANTI 125, JAW WIDTH 125 MM

ITEM NO.	BASE LENGTH	MAX. CLAMPING RANGE	WEIGHT	PRICE	COMPARABLE PREVIOUS VERSION
44205-125*	210 mm	210 mm	11.3 kg		44205
44255-125	260 mm	260 mm	13.2 kg		44255
44305-125	310 mm	310 mm	15.1 kg		44305
44355-125	360 mm	360 mm	16.9 kg		44355

*automatable



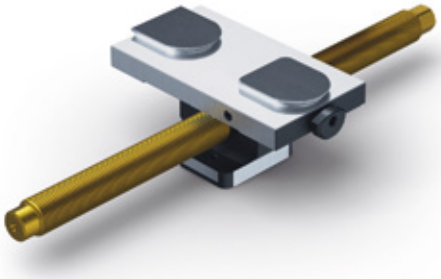


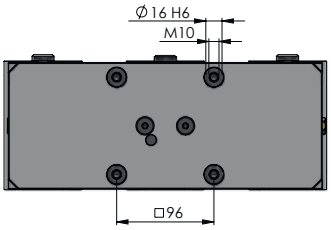


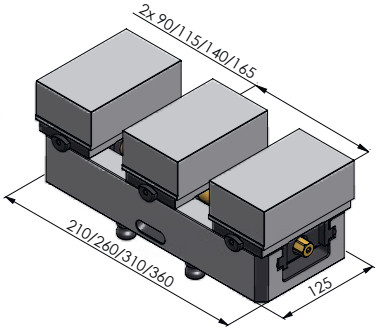
AVANTI 125 BASE JAWS

ITEM NO.	DIMENSIONS	WEIGHT	UNIT	PRICE	COMPARABLE PREVIOUS VERSION
44251-125	125 × 69 mm	3.7 kg	1 pair		44251

NEW







CENTRE BASE JAW + SPINDLE FOR AVANTI 125

ITEM NO.	SPINDLE LENGTH (+Ø)	FOR AVANTI	WEIGHT	PRICE
44255-TG125	264 mm (Ø 20 mm)	44255-125	2.1 kg	
44305-TG125	314 mm (Ø 20 mm)	44305-125	2.2 kg	
44355-TG125	364 mm (Ø 20 mm)	44355-125	2.3 kg	

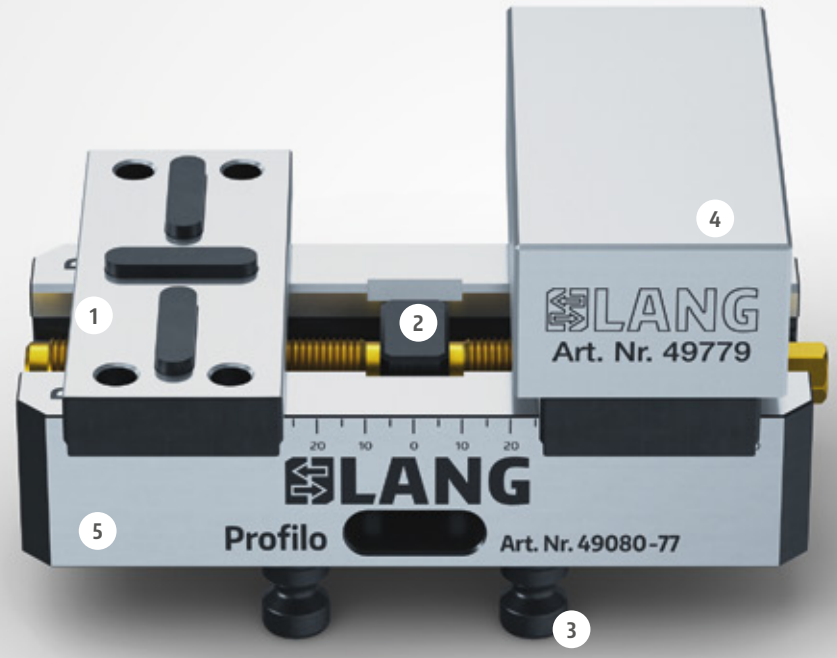
AVANTI 77 ADD-ON JAWS, SOFT

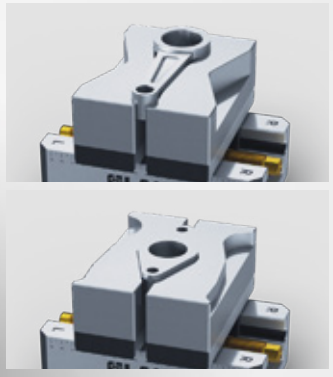
ITEM NO.	MATERIAL	DIMENSIONS	WEIGHT	UNIT	PRICE
44258-46	Steel (16MnCr5)	126 × 77 × 46 mm	3.3 kg	1 pc.	
44259-46	Aluminium (F50)	126 × 77 × 46 mm	1.1 kg	1 pc.	
44258-76	Steel (16MnCr5)	126 × 77 × 76 mm	5.5 kg	1 pc.	
44259-76	Aluminium (F50)	126 × 77 × 76 mm	1.8 kg	1 pc.	

Add-on jaws fit the new base jaw version and also the previous one.

Profilo **Technology**

Your clamping system for all shaped parts



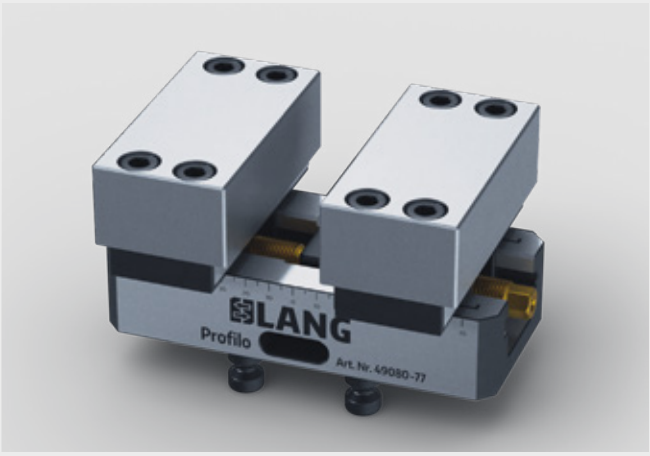


Large-volume steel or aluminium add-on jaw allows contours to be added on both sides of the jaws to use it for two different clamping applications.

1. Case-hardened, double guided base jaws with keyways
2. Centring accuracy ± 0.02 mm
3. Integrated with clamping studs for precise clamping in the Quick·Point® zero-point clamping system
4. Add-on jaws available in steel or aluminium
5. Rigid and sturdy base - but still lightweight and handy

Mounting options

Soft add-on jaws mounted from beneath with 4 screws.

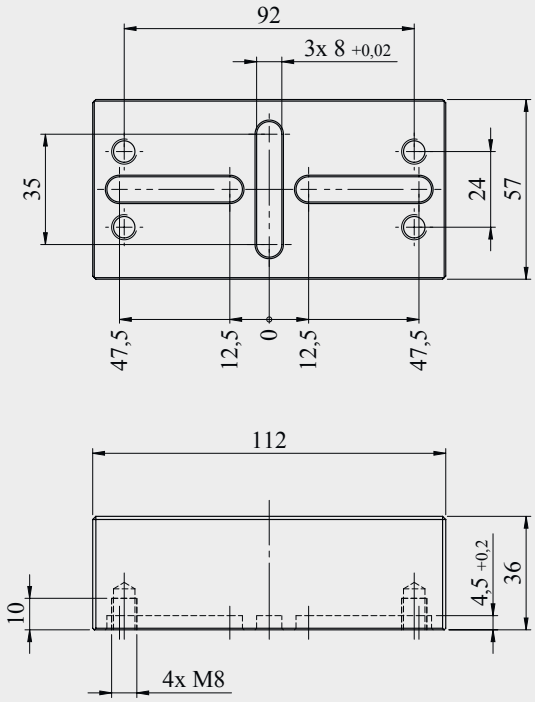


Thanks to threads in the base jaws, add-on jaws can also be mounted from the top for better accessibility towards the screws.

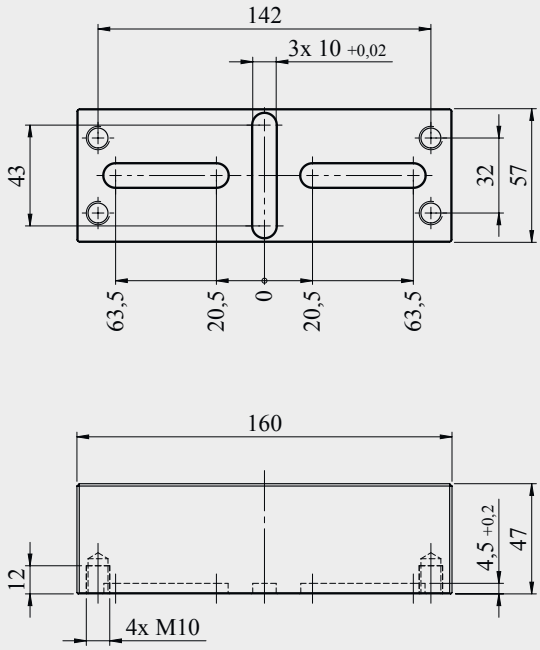
Self-made Profilo add-on jaws

The versatile Profilo system allows you to manufacture your own, customised add-on jaws for your LANG vice.
The drawings below show you how to machine your jaws. The drawings and 3D models can also be downloaded from our website.

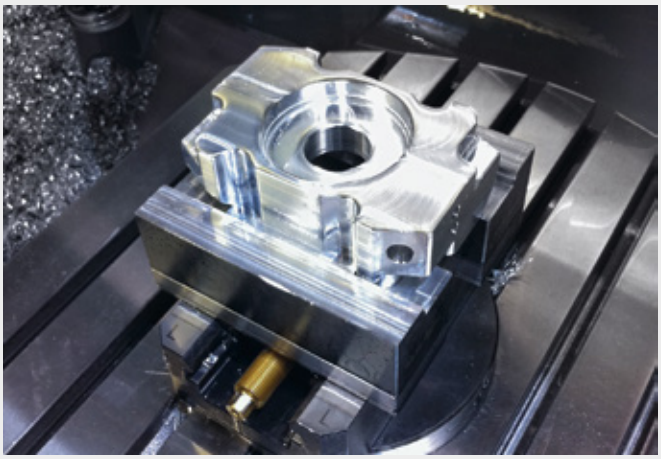
Profilo 77:

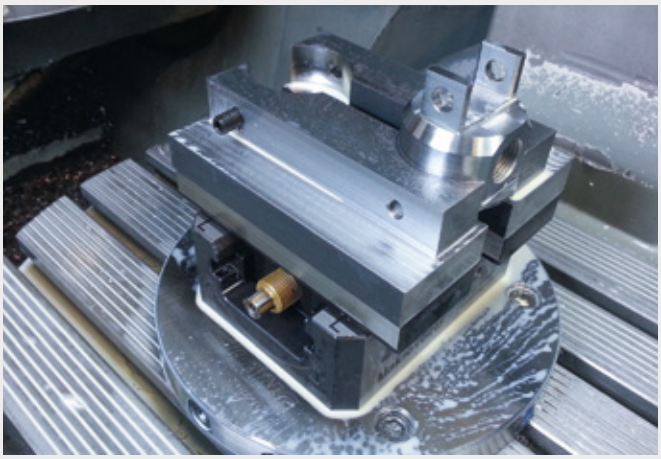


Profilo 125:



Applications

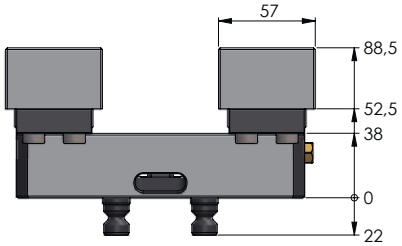


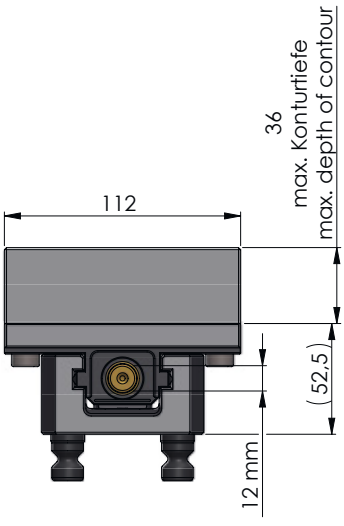


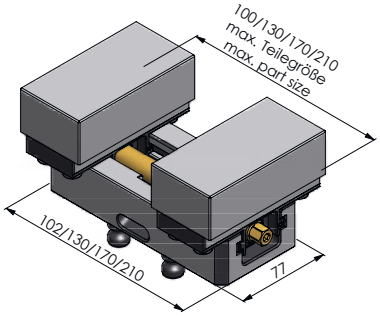
Profilo **77**

PROFILO 77

ITEM NO.	BASE LENGTH	MAX. CLAMPING RANGE	WEIGHT	PRICE	COMPARABLE PREVIOUS VERSION
49010-77	102 mm	100 mm	3.2 kg		49010
49040-77	130 mm	130 mm	3.6 kg		49040
49080-77	170 mm	170 mm	4.3 kg		49080
49120-77	210 mm	210 mm	5.0 kg		49120

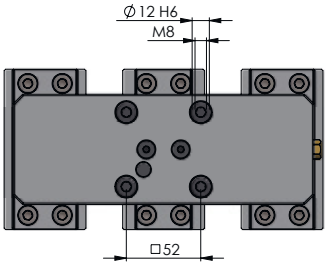


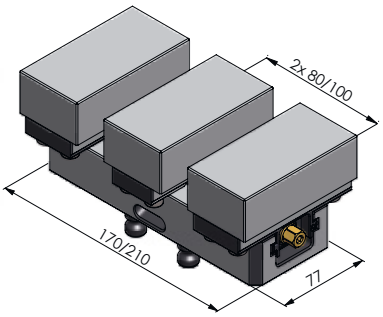




PROFILO 77 BASE JAWS

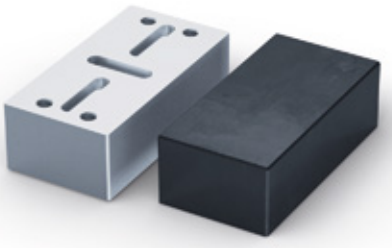
ITEM NO.	DIMENSIONS	WEIGHT	UNIT	PRICE	COMPARABLE PREVIOUS VERSION
49077	112×46 mm	1.6 kg	1 pair		49771





CENTRE BASE JAW 112 × 46 MM + SPINDLE FOR PROFILO 77

ITEM NO.	SPINDLE LENGTH (+Ø)	FOR PROFILO	WEIGHT	PRICE	COMPARABLE PREVIOUS VERSION
49080-TG77	175 mm (Ø 16 mm)	49080-77	0.9 kg		49080-TG
49120-TG77	215 mm (Ø 16 mm)	49120-77	1.0 kg		49120-TG



PROFILO 77 ADD-ON JAWS, SOFT

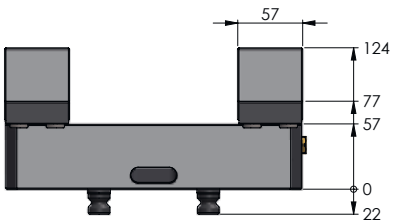
ITEM NO.	MATERIAL	DIMENSIONS	WEIGHT	UNIT	PRICE
49778	Steel (16MnCr5)	112×57×36 mm	1.8 kg	1 pc.	
49779	Aluminium (F50)	112×57×36 mm	0.7 kg	1 pc.	

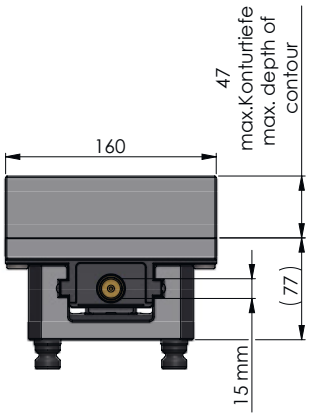
Add-on jaws fit the new base jaw version and also the previous one.

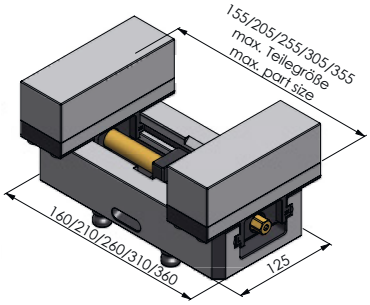
Profilo **125**

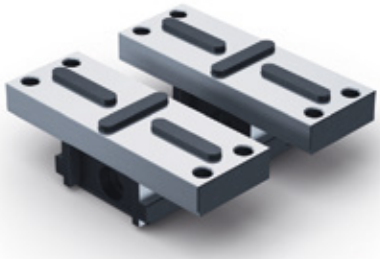
PROFILO 125

ITEM NO.	BASE LENGTH	MAX. CLAMPING RANGE	WEIGHT	PRICE	COMPARABLE PREVIOUS VERSION
49050-125	160 mm	155 mm	10.1 kg		49050
49100-125	210 mm	205 mm	11.9 kg		49100
49150-125	260 mm	255 mm	13.8 kg		49150
49200-125	310 mm	305 mm	15.7 kg		49200
49250-125	360 mm	355 mm	17.5 kg		49250



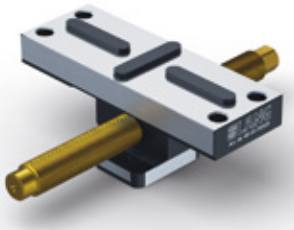


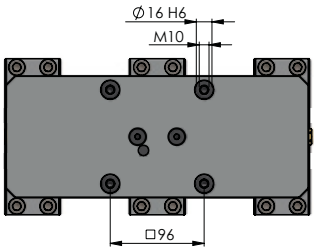


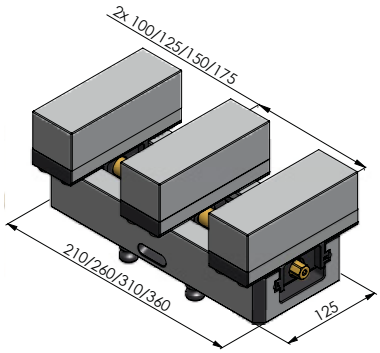


PROFILO 125 BASE JAWS

ITEM NO.	DIMENSIONS	WEIGHT	UNIT	PRICE	COMPARABLE PREVIOUS VERSION
49125	160×57 mm	4.3 kg	1 pair		49251

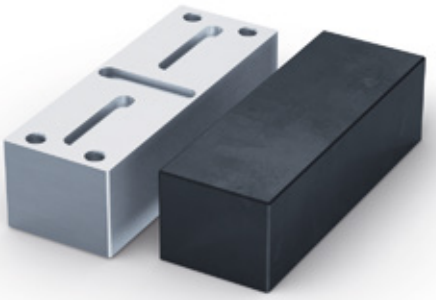






CENTRE BASE JAW 160 × 57 MM + SPINDLE FOR PROFILO 125

ITEM NO.	SPINDLE LENGTH (+Ø)	FOR PROFILO	WEIGHT	PRICE	COMPARABLE PREVIOUS VERSION
49100-TG125	214 mm (Ø 20 mm)	49100-125	2.5 kg		49100-TG
49150-TG125	264 mm (Ø 20 mm)	49150-125	2.6 kg		49150-TG
49200-TG125	314 mm (Ø 20 mm)	49200-125	2.7 kg		49200-TG
49250-TG125	364 mm (Ø 20 mm)	49250-125	2.9 kg		49250-TG



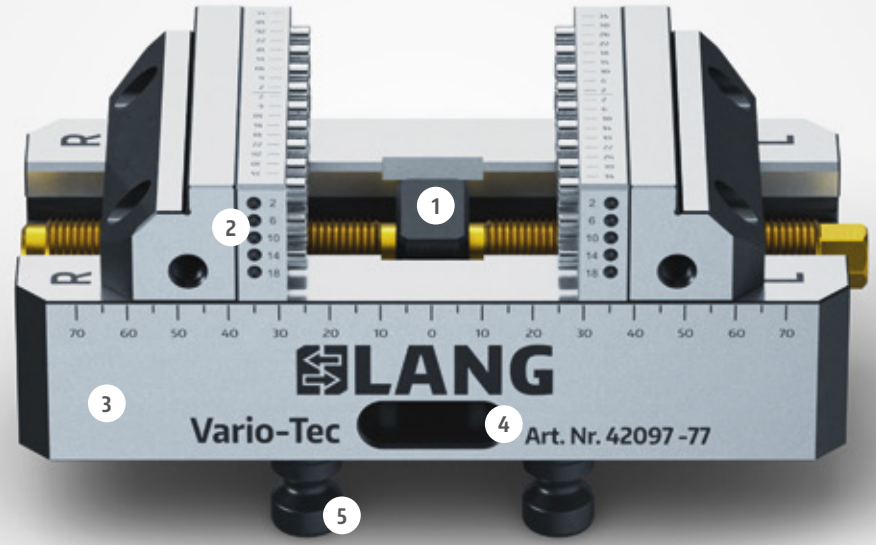
PROFILO 125 ADD-ON JAWS, SOFT

ITEM NO.	MATERIAL	DIMENSIONS	WEIGHT	UNIT	PRICE
49258	Steel (16MnCr5)	160×57×47 mm	3.3 kg	1 pc.	
49259	Aluminium (F50)	160×57×47 mm	1.2 kg	1 pc.	

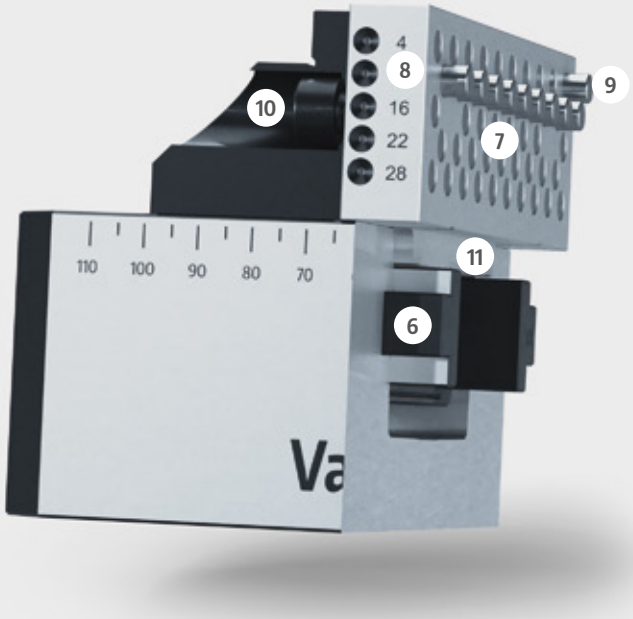
Add-on jaws fit the new base jaw version and also the previous one.

Vario·Tec **Technology**

The convenient and versatile clamping solution for (semi-)finished parts.



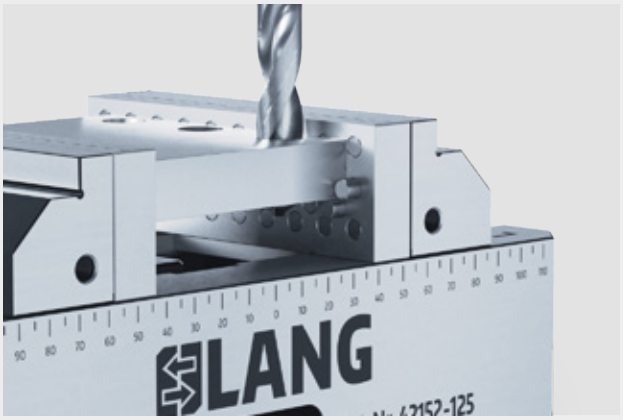
1. Centring accuracy ± 0.02 mm
2. Channels for blowing out pins
3. Rigid and sturdy base for great longevity
4. Lateral swarf/coolant drain in the base body
5. Integrated with clamping studs for precise clamping in the Quick·Point® zero-point clamping system



6. Double guided jaws
7. Positioning accuracy of pins ± 0.01 mm
8. Pins are blown out row by row with compressed air
9. Support and resting possibilities. Parallels are not needed
10. Jaws are sealed up front and mounted from behind through the carrier jaw. No swarf clogging possible!
11. Pin jaws are guided in the base for a highly accurate location to one another.

Applications

Pins not needed are simply pushed back by hand. The remaining pins act as a support and resting system.
Parallels and additional endstops which affect accessibility in a negative way are not needed.

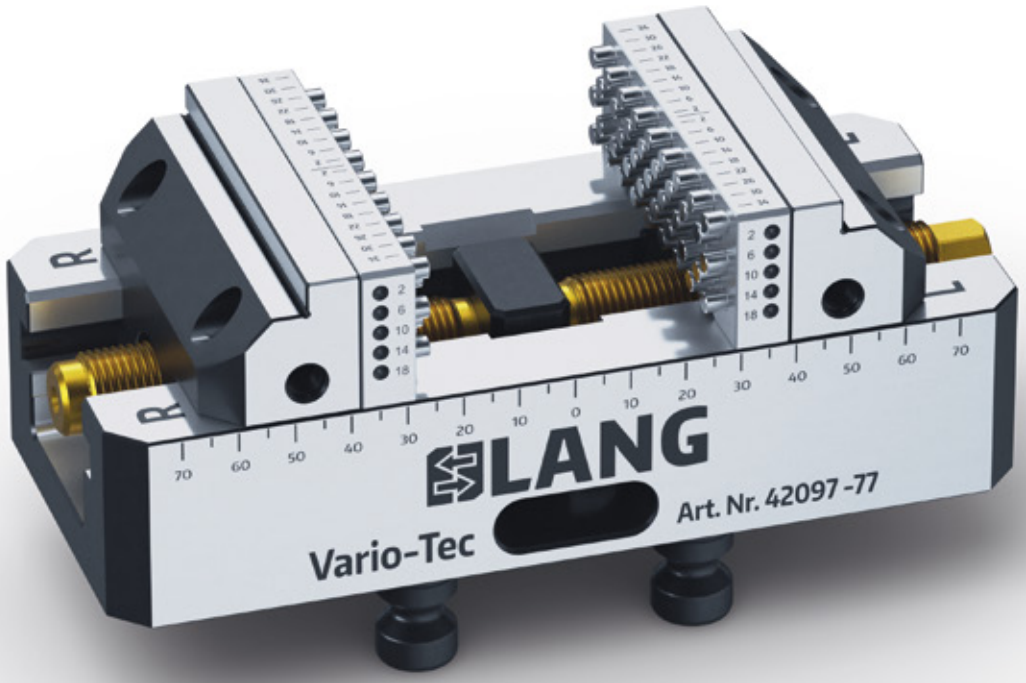


Resting a workpiece on only two pins ensures great freedom to machine until close to the edge of the workpiece and inner surfaces of the clamping pin jaws.

Maintenance recommendation

In order to keep up the proper function of the system the pins should be blown out when not needed to prevent jamming caused by the coolant. Furthermore we recommend applying a multi-purpose oil on the pins occasionally.

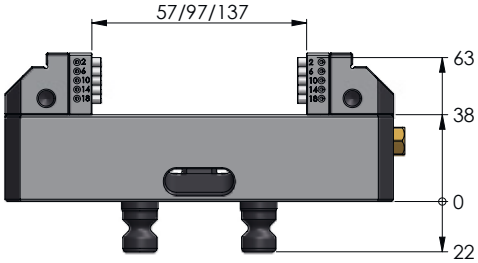
Vario·Tec **77**

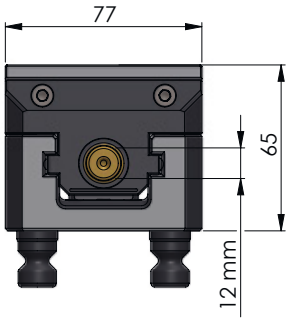


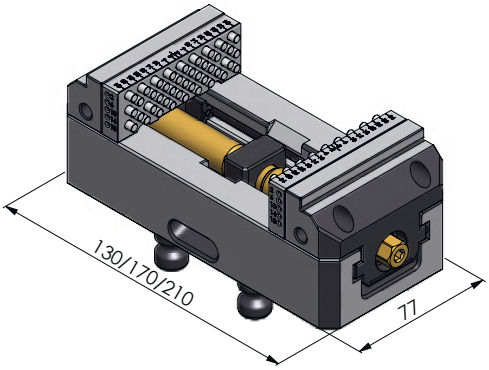
VARIO·TEC 77

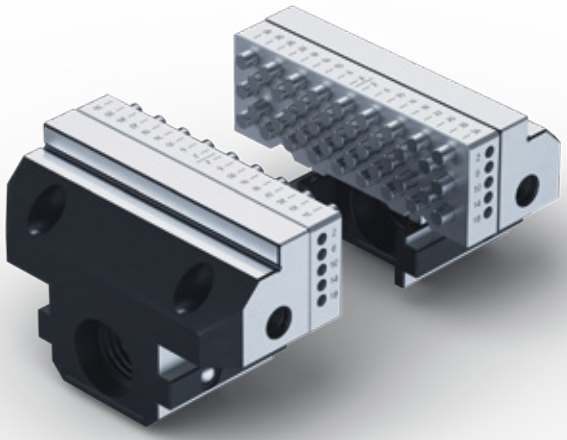
ITEM NO.	BASE LENGTH	MAX. CLAMPING RANGE	WEIGHT	PRICE	COMPARABLE PREVIOUS VERSION
42057-77*	130 mm	55 mm	3.3 kg		42057
42097-77	170 mm	95 mm	4.0 kg		42097
42137-77	210 mm	135 mm	4.6 kg		42137

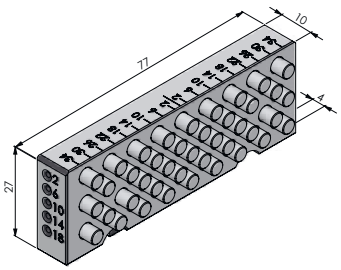
*automatable











The jaws are fixed with screws from behind (2 × M6, distance of 48 mm), so they are sealed up front. Hence swarf clogging has no chance!

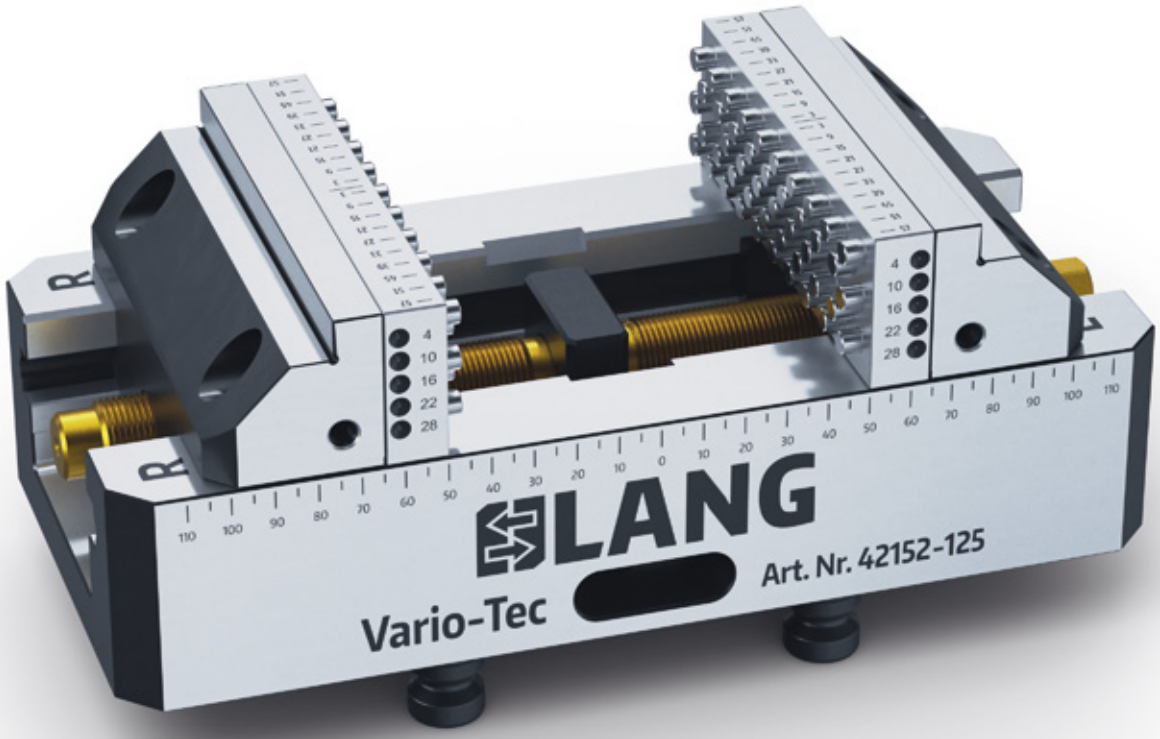
VARIO·TEC 77 SPARE JAWS

ITEM NO.	DESCRIPTION	UNIT	WEIGHT	PRICE	COMPARABLE PREVIOUS VERSION
42018-77	Spare Jaws	1 set (2 pin jaws + 2 carrier jaws)	1.2 kg		42077

ACCESSORIES VARIO·TEC 77

ITEM NO.	DESCRIPTION	UNIT	PRICE
20000	Spare pins Ø 4 mm	5 pcs.	
200009	O-Rings Ø 2 × 1.5 mm for spare pins Ø 4 mm	100 pcs.	
20004	Air pressure pistol	1 pc.	

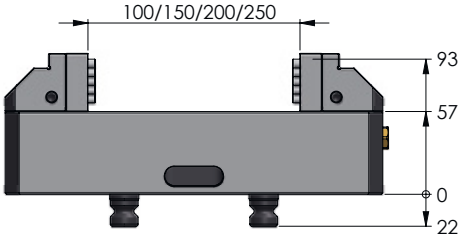
Vario·Tec **125**

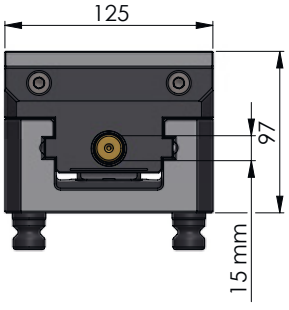


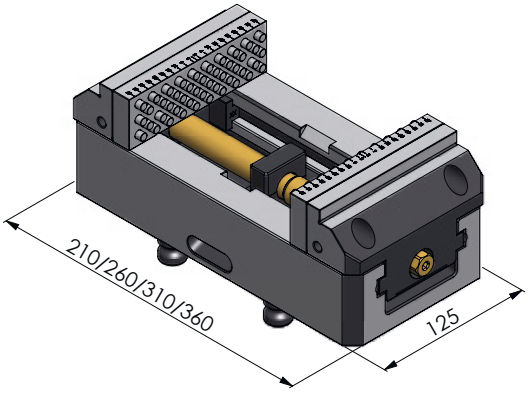
VARIO·TEC 125

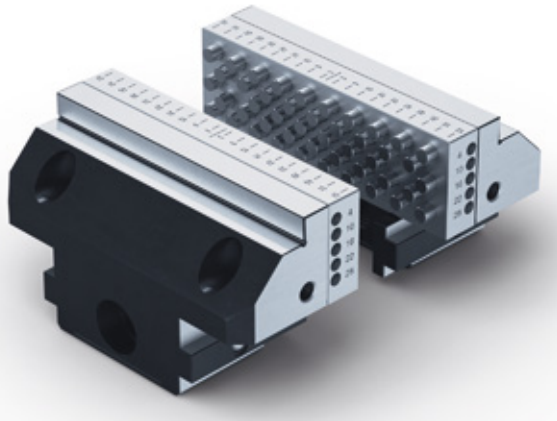
ITEM NO.	BASE LENGTH	MAX. CLAMPING RANGE	WEIGHT	PRICE	COMPARABLE PREVIOUS VERSION
42102-125*	210 mm	100 mm	12.3 kg		42102
42152-125	260 mm	150 mm	14.2 kg		42152
42202-125	310 mm	200 mm	16.0 kg		42202
42252-125	360 mm	250 mm	17.9 kg		42252

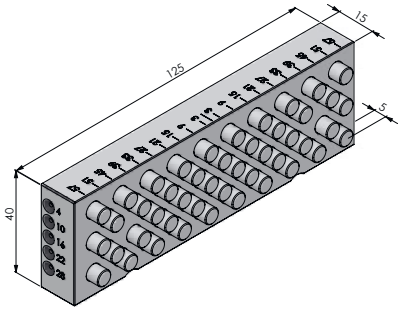
*automatable

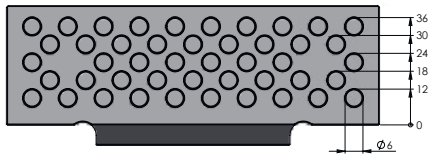












The jaws are fixed with screws from behind (2 × M 8, distance of 84 mm), so they are sealed up front. Hence swarf clogging has no chance!

VARIO·TEC 125 SPARE JAWS

ITEM NO.	DESCRIPTION	UNIT	WEIGHT	PRICE	COMPARABLE PREVIOUS VERSION
42018-125	Spare Jaws	1 set (2 pin jaws + 2 carrier jaws)	4.7 kg		42125

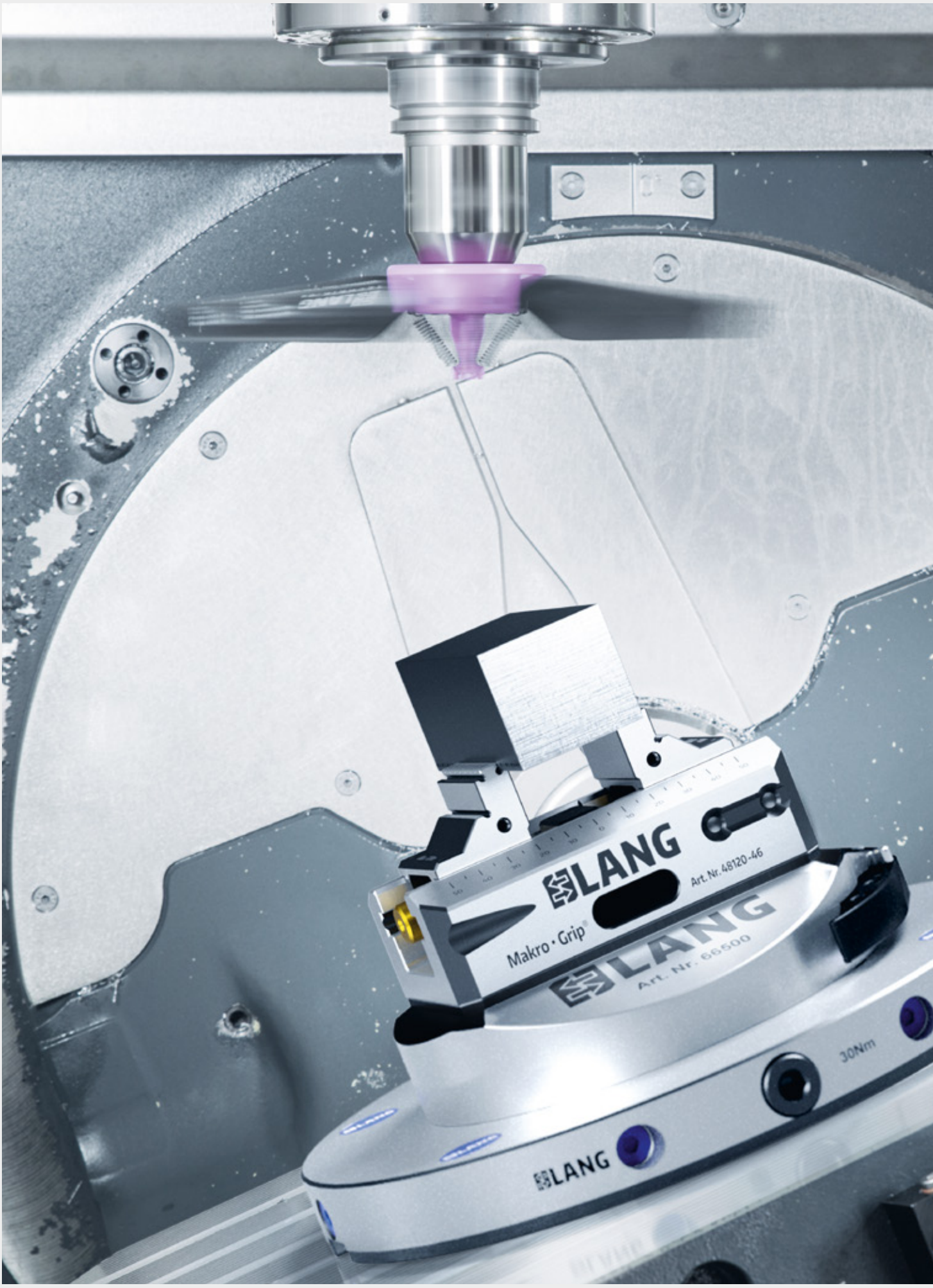
ACCESSORIES VARIO·TEC 125

ITEM NO.	DESCRIPTION	UNIT	PRICE
20001	Spare pins Ø 6 mm	5 pcs.	
200010	O-Rings Ø 3.5 × 2 mm for spare pins Ø 6 mm	100 pcs.	
20004	Air pressure pistol	1 pc.	


LANG
LANG

CLEANING FAN

CONTENTS


LANG
Art. Nr. 48120-46
Makro • Grip®
LANG
Art. Nr. 66500
30Nm
LANG

Clean·Tec
Cleaning Fan

The Clean·Tec Cleaning Fan cleans the machine interior after machining processes, removing chips and coolant without the operator having to open the machine tool door. As a final step in the machining process, the fan is called up via the machine program and selected from the tool magazine. Its blades are opened and closed by controlling the speed of the machine tool spindle.

→ Cleanliness

No swarf and coolant outside the machine tool

→ Energy Savings

Expensive compressed air not needed

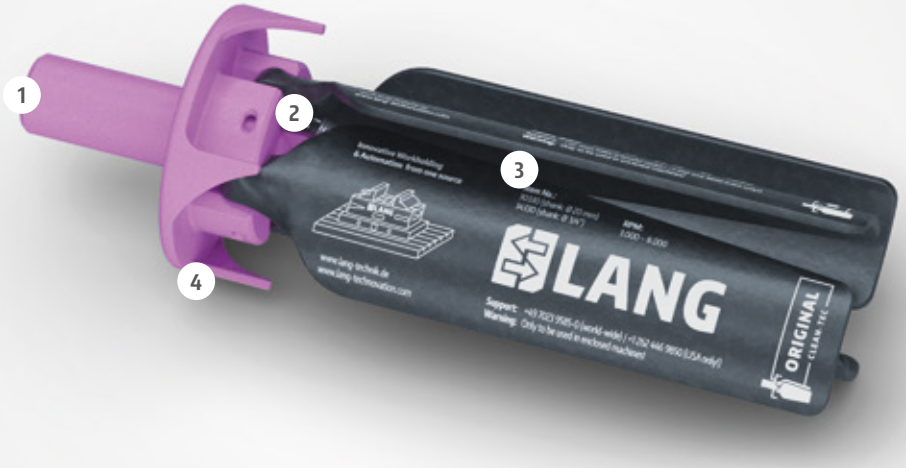
→ Unmanned Cleaning

Especially essential in the automated production

Clean·Tec **Technology**

ORIGINAL CLEAN·TEC

Save expensive compressed air – use Clean·Tec



1 Fibreglass compound body with steel centre core. Can be clamped in every common shank Ø 20 mm

2 Rigid retaining spring for the secure folding of blades after the cleaning process

3 Strong and wear-resistant carbon fibre wings for best durability – even with tough chipping

4 Slim design for space-saving storage in the tool magazine

EIN HERZ FÜR KINDER

WITH EVERY CLEAN·TEC FAN SOLD, 2 EUROS WILL BE DONATED TO THE "HERZ FÜR KINDER"-FOUNDATION.

Learn more on page 135

The Clean·Tec wings open and close automatically by switching the machine tool spindle on and off.

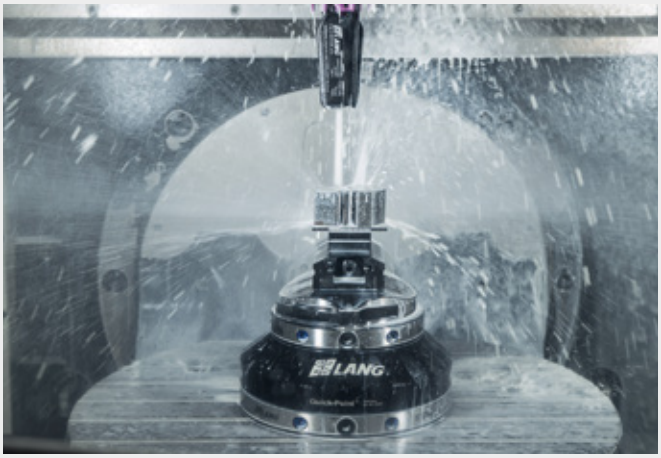
Use recommendations

Acceleration

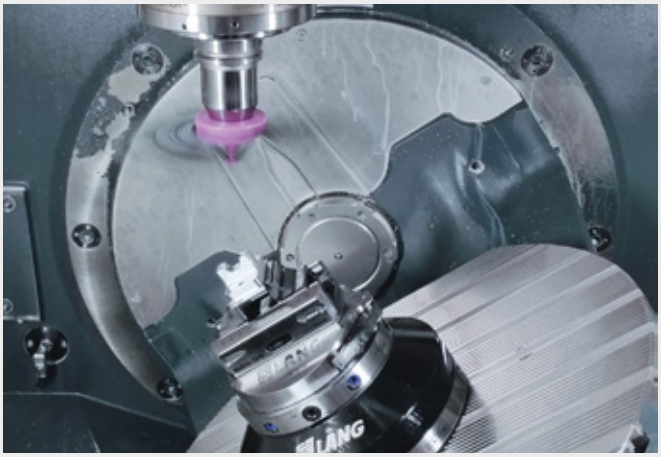
Turn clockwise to clean the parts. By rotating the spindle the wings will open. We recommend to accelerate in 2 stages:
1. Accelerate to 2.000 RPM
2. Accelerate to the operating RPM
(Clean·Tec works efficiently at 4.000 RPM already!)

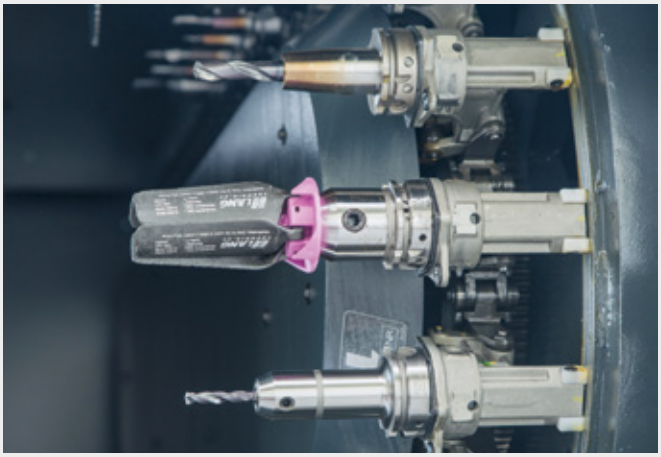
Motion

Move the rotating fan with a distance of **100 – 150 mm** above the workpiece and apply a feed rate of **3 – 10 m/min**. Then return to the tool change position.



The design of Clean·Tec allows you to wash workpieces and fixtures using coolant **– with the machine spindle turned off and the Clean·Tec blades folded! –** This enhances the cleaning effect and makes perfect sense if pockets and bores are commonly packed with swarf and chips.





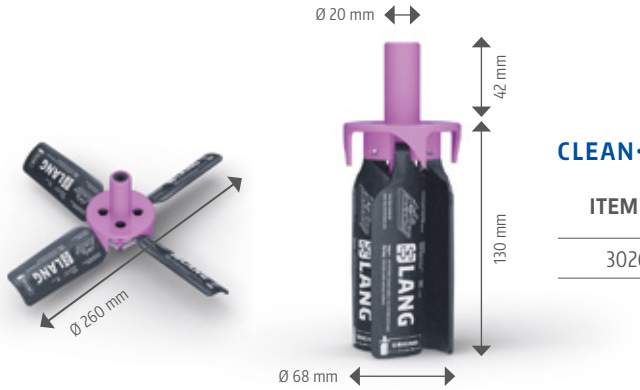
For smooth processes in automated, unmanned production Clean·Tec is a must-have! It is ideal for cleaning workpieces, fixtures and the machine table prior to an automatic unloading.

The Clean·Tec Cleaning Fan is stored just like a common tool in the tool magazine and selected automatically via a CNC program. Thanks to its compact design (only Ø 68 mm) tool pockets neighboring the Clean·Tec's storage place can be equipped with other tools and don't have to be left empty.

Clean·Tec **Cleaning Fan**

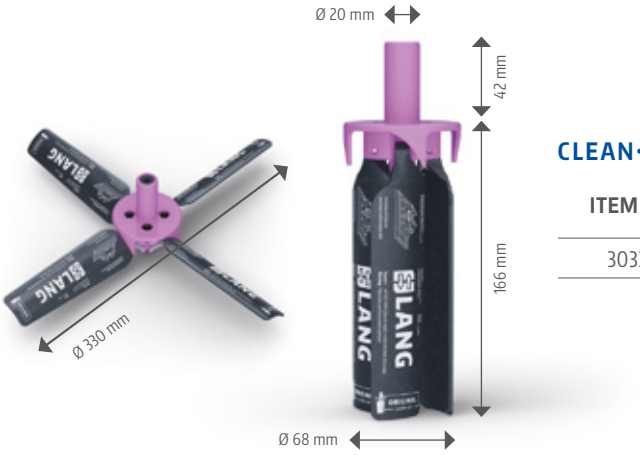
CLEAN·TEC 160

ITEM NO.	Ø WITH OPEN WINGS	RPM RANGE	PRICE
30160	160 mm	6.000 – 12.000 RPM	



CLEAN·TEC 260

ITEM NO.	Ø WITH OPEN WINGS	RPM RANGE	PRICE
30260	260 mm	5.000 – 8.000 RPM	



CLEAN·TEC 330

ITEM NO.	Ø WITH OPEN WINGS	RPM RANGE	PRICE
30330	330 mm	3.000 – 8.000 RPM	

SPARE PART KIT, 4 PCS. FIBREGLASS WINGS AND SPRINGS

ITEM NO.	FOR	PRICE
30164	30160	
30264	30260	
30334	30330	

LANG Technik supports
Bild hilft e.V. “Ein Herz für Kinder”

As a family owned company, we think in generations. For this reason, we have for years supported different projects that sponsor and strengthen our next generations. One of those is the Bild hilft e.V. “Ein Herz für Kinder” campaign founded by the Axel Springer Verlag 40 years ago. For the last four years we've donated 2 € with every Clean·Tec fan sold. Up to this date, we've collected more than 50.000 € for children in need.

Bild hilft e.V. “Ein Herz für Kinder” is an internationally active aid organisation founded in 1978 by Axel Springer. Since its foundation it has raised more than 315 million Euro. Funding priority is Germany, but projects all over the world are supported. For example, “Ein Herz für Kinder” supports children's hospitals, kindergartens, soup kitchens, schools and families. The aid organization also ensures life-saving surgeries and therapies for children who are seriously ill and cannot be treated sufficiently in their home country. Additionally, Bild hilft e.V. “Ein Herz für Kinder” provides immediate help in war and disaster zones.

→ Find out more about the aid organisation and its current projects: **www.ehfk.de**.

EIN HERZ FÜR KINDER

With every Clean·Tec fan sold, 2 Euros will be donated to the BILD hilft e.V. “Ein Herz für Kinder” foundation.

Further organisation and associations which are regularly supported by LANG Technik are for example:

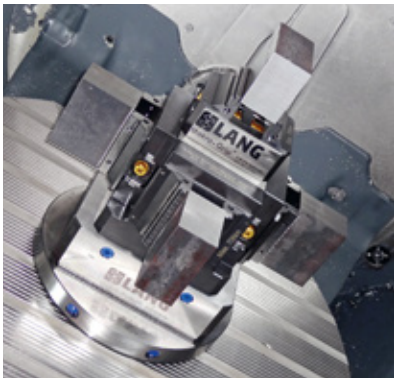
- Madeleine-Schickedanz-Kinderkrebs-Stiftung
- Zukunft für Kinder - Förderverein Kinder- u. Jugendheim Neuhausen e.V.
- Helfer vor Ort - First Responder - DRK Weilheim

Individual clamping solutions

Our department for custom-made products

To achieve high machine utilisation and thus offer you a very attractive return on investment, our production facilities in Holzmaden utilise modern production methods and concepts enabling us to efficiently produce large lot sizes of our standardised products. Another goal of ours is to tailor our proven products to your production requirements. For this reason, a separate department was founded 2 years ago, located in Neuhausen, Germany, our former headquarters. It specifically handles individual clamping solutions based around the LANG product range and offers customised, completed solutions for your application. From consultation, concept, construction, up to production – together, with you we develop a custom-made solution. Below you will find just a sample of projects that have been realised so far.

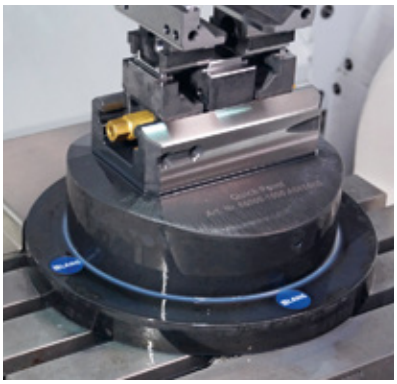
Contact information: LANG Technik GmbH · Zabergäustr. 5 · D-73765 Neuhausen
Tel.: +49 7158 90 38- 0 · E-Mail: info@lang-technik-nh.de



Product: Makro·Grip®

What is special? Integrated guides in the clamping cube and a Makro·Grip® 5-Axis Vice on top.

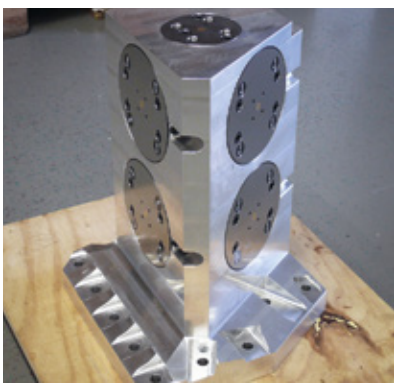
Application: Multi-clamping system for 5-axis machine tools.



Product: Quick·Point®

What is special? Pneumatic Quick·Point® 52 plate Ø 157 / 230 mm × 80 mm

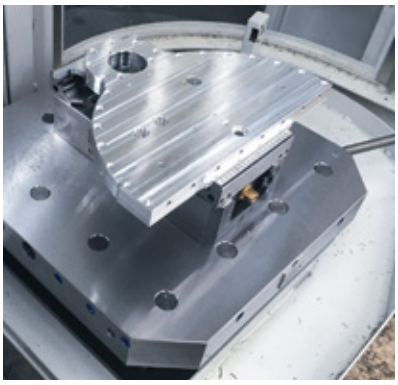
Application: Pneumatic Quick·Point® plate for a Makino DA 300 machine tool equipped with Robo·Trex automation. The clamping tower facilitates clamping, releasing and is operated by the machine's media interface.



Product: Quick·Point® Quick·Tower

What is special? 3-face Tombstone made of aluminium, total height 520 mm, equipped with 6 × 45801 and 1 × 45751.

Application: This tower is used for manufacturing aerospace parts in a Mori-Seiki horizontal machining centre.



Product: Quick·Point®

What is special? Support pallet 400 × 400 × 49 mm

Application: Automation support pallet for a Hermle C42 machining centre with a robotic automation system. Parts with a dimension of 275 × 300 × 40mm are being produced during unmanned night shifts. The integrated Quick·Point® system keeps the pallet's total height at only 49 mm.

Experience the future live!

Our training centre – Your advantage in know-how

Visit us!
If you have a special need for clamping technology or automation systems, or if you just want to find out more about our products, we would be delighted to welcome you in Neuhausen!

LANG Technik GmbH
Zabergäustr. 5
D-73765 Neuhausen

The steadily growing demands on companies and employees make it necessary to continue their education in professional life. In our training centre, we offer a variety of courses and seminars on the topics of production optimisation, set-up time reduction and automation.

The training centre has a training room for individual or group training and well-equipped machinery with the latest automation systems from LANG Technik. The premises, which are used by customers, sales partners, vocational schools or master and technician classes, thus create the best conditions for experiencing the entire LANG product range up close.

Thanks to its convenient transport links and its close proximity to Stuttgart Airport and the A8 motorway, the Neuhausen Training and Technology Centre offers ideal conditions for a short but effective workshop on the topics mentioned above.

Spare Parts for former vice versions

On this double page you find all spare parts for your existing vices (versions until September 2018)

MAKRO·GRIP® AUTOMATION VICE

46160	Makro·Grip® Automation Vice 77
46205	Makro·Grip® Automation Vice 125

Available for all existing Eco-Compact 10, Eco-Compact 20, Eco-Tower 60

MAKRO·GRIP® AUTOMATION DUAL-CLAMPING VICE

46200	Makro·Grip® Automation Dual-Clamping Vice 77
46200-TG17	Retrofitting Kit Centre Jaw 17 mm + Spindle Ø 16, length 215 mm
46200-TG27	Retrofitting Kit Centre Jaw 27 mm + Spindle Ø 16, length 215 mm

Available for all existing Eco-Compact 10, Eco-Compact 20, Eco-Tower 60

QUICK·POINT® AUTOMATION SUPPORT PALLET

65190	Quick·Point® Automation Support Pallet Ø 178 × 24 mm

Available for further purchase for existing automation systems Eco-Compact 10, Eco-Compact 20, Eco-Tower 60.

AVANTI

BASE JAWS		PRICE
44461	Avanti Base Jaws 46	
44771	Avanti Base Jaws 77	
44251	Avanti Base Jaws 125	

PROFILO

BASE JAWS		PRICE
49771	Avanti Base Jaws 77	
49251	Avanti Base Jaws 125	
CENTRE BASE JAW + SPINDLE		**PRICE**
49080-TG	Centre Base Jaw 77 + Spindle Ø 16 mm, length 175 mm	
49120-TG	Centre Base Jaw 77 + Spindle Ø 16 mm, length 215 mm	
49100-TG	Centre Base Jaw 125 + Spindle Ø 20 mm, length 215 mm	
49150-TG	Centre Base Jaw 125 + Spindle Ø 20 mm, length 265 mm	
49200-TG	Centre Base Jaw 125 + Spindle Ø 20 mm, length 315 mm	
49250-TG	Centre Base Jaw 125 + Spindle Ø 20 mm, length 365 mm	

VARIO·TEC

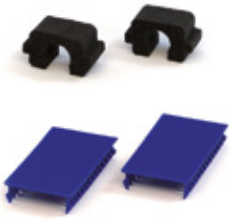
SPARE JAW SET		PRICE
42077	Spare Jaw Set 77 (2 pin jaws + 2 carrier jaws)	
42125	Spare Jaw Set 125 (2 pin jaws + 2 carrier jaws)	

5-AXIS VICE

	SPARE JAWS		PRICE
Makro·Grip® 46	47046-20	Spare Jaws Makro·Grip® 46	
Makro·Grip® 77	47077-20	Spare Jaws Makro·Grip® 77	
	47085-20	Spare Jaws Makro·Grip® 77, for Item No. 47085	
Makro·Grip® 125	47125-20	Spare Jaws Makro·Grip® 125	

	CENTRE PIECE + SPINDLE		PRICE
Makro·Grip® 46	4046082	Centre Piece + Spindle Ø 12 mm, length 82 mm	
	4046122	Centre Piece + Spindle Ø 12 mm, length 122 mm	
	4046162	Centre Piece + Spindle Ø 12 mm, length 162 mm	
Makro·Grip® 77	4077102	Centre Piece + Spindle Ø 16 mm, length 102.5 mm	
	4077135	Centre Piece + Spindle Ø 16 mm, length 135 mm	
	4077175	Centre Piece + Spindle Ø 16 mm, length 175 mm	
	4077215	Centre Piece + Spindle Ø 16 mm, length 215 mm	
Makro·Grip® 125	4025165	Centre Piece + Spindle Ø 20 mm, length 165 mm	
	4025215	Centre Piece + Spindle Ø 20 mm, length 215 mm	
	4025265	Centre Piece + Spindle Ø 20 mm, length 265 mm	
	4025315	Centre Piece + Spindle Ø 20 mm, length 315 mm	
	4025365	Centre Piece + Spindle Ø 20 mm, length 365 mm	

	CENTRE JAW + SPINDLE FOR DUAL CLAMPING		PRICE
Makro·Grip® 46	47065-TG	Centre Jaw + Spindle Ø 12 mm, length 82 mm	
	47105-TG	Centre Jaw + Spindle Ø 12 mm, length 122 mm	
	47145-TG	Centre Jaw + Spindle Ø 12 mm, length 162 mm	
Makro·Grip® 77	47085-TG17	Centre Jaw 17 mm + Spindle Ø 16 mm, length 102.5 mm	
	47085-TG27	Centre Jaw 27 mm + Spindle Ø 16 mm, length 102.5 mm	
	47120-TG17	Centre Jaw 17 mm + Spindle Ø 16 mm, length 135 mm	
	47120-TG27	Centre Jaw 27 mm + Spindle Ø 16 mm, length 135 mm	
	47160-TG17	Centre Jaw 17 mm + Spindle Ø 16 mm, length 175 mm	
	47160-TG27	Centre Jaw 27 mm + Spindle Ø 16 mm, length 175 mm	
	47200-TG17	Centre Jaw 17 mm + Spindle Ø 16 mm, length 215 mm	
	47200-TG27	Centre Jaw 27 mm + Spindle Ø 16 mm, length 215 mm	
Makro·Grip® 125	47155-TG17	Centre Jaw 17 mm + Spindle Ø 20 mm, length 165 mm	
	47155-TG27	Centre Jaw 27 mm + Spindle Ø 20 mm, length 165 mm	
	47205-TG17	Centre Jaw 17 mm + Spindle Ø 20 mm, length 215 mm	
	47205-TG27	Centre Jaw 27 mm + Spindle Ø 20 mm, length 215 mm	
	47255-TG17	Centre Jaw 17 mm + Spindle Ø 20 mm, length 265 mm	
	47255-TG27	Centre Jaw 27 mm + Spindle Ø 20 mm, length 265 mm	
	47305-TG17	Centre Jaw 17 mm + Spindle Ø 20 mm, length 315 mm	
	47305-TG27	Centre Jaw 27 mm + Spindle Ø 20 mm, length 315 mm	
	47355-TG17	Centre Jaw 17 mm + Spindle Ø 20 mm, length 365 mm	
	47355-TG27	Centre Jaw 27 mm + Spindle Ø 20 mm, length 365 mm	



	SPINDLE COVERS		PRICE
Makro·Grip® 46	47046-80	Spindle Covers Foam, 10 pcs.	
Makro·Grip® 77	47077-70	Spindle Covers Plastic, 10 pcs.	
	47077-80	Spindle Covers Foam, 10 pcs.	
Makro·Grip® 125	47125-70	Spindle Covers Plastic, 10 pcs.	
	47125-80	Spindle Covers Foam, 10 pcs.	

Product Finder

ITEM NO.	DESCRIPTION	PAGE
45570	Quick·Point® 96 Clamping Studs, Ø 20 mm	50
45570-10	Quick·Point® 96 Spacer Studs, Ø 20 mm	53
45575	Quick·Point® 96 Support Plate, 156 × 156 × 27 mm	52
45577	Quick·Point® 96 Support Plate, 192 × 192 × 27 mm	52
45600	Quick·Point® 52 Grid Plate, 104 × 104 × 27 mm, w/o bores	16
45621	Quick·Point® 52, Double Grid Plate, 208 × 104 × 27 mm	28, 43
45640	Quick·Point® 52, 4-fold Grid Plate, 208 × 208 × 27 mm, w/o bores	29
45641	Quick·Point® 52, 4-fold Grid Plate, 208 × 208 × 27 mm, with bores for 63 mm distance	29
45642	Set keyways in 4-fold Grid Plate 52 according to customer's request	29
45644	Set mounting bores in 4-fold Grid Plate 52 according to customer's request	29
45710	Quick·Point® 96 Grid Plate, 192 × 192 × 27 mm, w/o bores	17
45715	Quick·Point® 96 Extended Grid Plate, 246 × 192 × 27 mm, with bores for 100 mm distance	19
45716	Quick·Point® 96 Extended Grid Plate, 246 × 192 × 27 mm, w/o bores	19
45720	Quick·Point® 96, Double Grid Plate, 384 × 192 × 27 mm	30
45740	Quick·Point® 96, 4-fold Grid Plate, 384 × 384 × 27 mm, w/o bores	32
45741	Quick·Point® 96, 4-fold Grid Plate, 384 × 384 × 27 mm, with bores for 63 mm distance	33
45742	Quick·Point® 96, 4-fold Grid Plate, 384 × 384 × 27 mm, with bores for 100 mm distance	33
45750	Quick·Point® 52 Round Plate, Ø 116 × 27 mm	22
45751	Quick·Point® 52 Round Plate, Ø 116 × 27 mm, w/o bores	22
45763	Quick·Point® 96 Grid Plate, 192 × 192 × 27 mm, with bores for 63 mm distance	18
45800	Quick·Point® 96 Round Plate, Ø 176 × 27 mm	24
45801	Quick·Point® 96 Round Plate, Ø 176 × 27 mm, w/o bores	24
45803	Quick·Point® 96 Round Plate, Ø 176 × 27 mm, for individual centre bore	27
45820	Quick·Point® 96 Round Plate, Ø 196 × 27 mm, w/o bores	25
45823	Quick·Point® 96 Round Plate, Ø 196 × 27 mm, for individual centre bore	27
45840	Quick·Point® 96 Round Plate, Ø 246 × 27 mm, w/o bores	25
45843	Quick·Point® 96 Round Plate, Ø 246 × 27 mm, for individual centre bore	27
45863	Quick·Point® 96 Round Plate, Ø 246 × 27 mm, with bores for 63 mm distance	18
45890	Quick·Point® 96 Round Plate, Ø 246 × 27 mm, with bores for 63 mm distance	25
45900	Quick·Point® 52 Round Plate, Ø 157 × 27 mm	23
45901	Quick·Point® 52 Round Plate, Ø 157 × 27 mm, w/o bores	23
45903	Quick·Point® 52 Round Plate, Ø 157 × 27 mm, for individual centre bore	26
45910	Quick·Point® Adaptor Plate, round, Ø 157 × 27 mm	35
45962	Quick·Point® 96, Double Grid Plate, round, Ø 384 × 27 mm, w/o bores	30
45963	Quick·Point® 96, Double Grid Plate, round, Ø 384 × 27 mm, with bores for 63 mm distance	31
45964	Quick·Point® 96, Double Grid Plate, round, Ø 384 × 27 mm, with bores for 100 mm distance	31
45996	Quick·Point® Quick-Lock 96 for Double Grid Plate 96, round	54
46081	Quick·Point® Handle Bar, aluminium	56
47005	Cordless Drill Attachment, Internal Hexagon size 5	91, 97
47220	Quick·Point® 52, Twin Base, 146 × 76 × 168 mm	41
47520	Quick·Point® 96, Twin Base, 192 × 116 × 247 mm	41
48077-4620	Spare Jaws for Makro·Grip® 5-Axis Vice 77, jaw width 46	90
48077-4622	Spare Jaws w/o holding teeth, for Makro·Grip® 77, jaw width 46	90
48077-7720	Spare Jaws for Makro·Grip® 5-Axis Vice 77, jaw width 77	90
48077-7722	Spare Jaws w/o holding teeth, for Makro·Grip® 77, jaw width 77	90
48085-46	Makro·Grip® 5-Axis Vice 77, jaw width 46, length 102 mm	86
48085-4620	Spare Jaws for Makro·Grip® 5-Axis Vice 77, jaw width 46 (48085-46)	90
48085-4622	Spare Jaws w/o holding teeth, for Makro·Grip® 77, jaw width 46 (48085-46)	90
48085-77	Makro·Grip® 5-Axis Vice 77, jaw width 77, length 102 mm	88
48085-7720	Spare Jaws for Makro·Grip® 5-Axis Vice 77, jaw width 77 (48085-77)	90
48085-7722	Spare Jaws w/o holding teeth, for Makro·Grip® 77, jaw width 77 (48085-46)	90
48085-TG4617	Centre Jaw 46 (17 mm) + Spindle length 100 mm	100
48085-TG4627	Centre Jaw 46 (27 mm) + Spindle length 100 mm	100
48085-TG7717	Centre Jaw 77 (17 mm) + Spindle length 100 mm	100
48085-TG7727	Centre Jaw 77 (27 mm) + Spindle length 100 mm	100
48120-46	Makro·Grip® 5-Axis Vice 77, jaw width 46, length 130 mm	86
48120-77	Makro·Grip® 5-Axis Vice 77, jaw width 77, length 130 mm	88
48120-TG4617	Centre Jaw 46 (17 mm) + Spindle length 135 mm	100
48120-TG4627	Centre Jaw 46 (27 mm) + Spindle length 135 mm	100
48120-TG7717	Centre Jaw 77 (17 mm) + Spindle length 135 mm	100
48120-TG7727	Centre Jaw 77 (27 mm) + Spindle length 135 mm	100
48125-2520	Spare Jaws for Makro·Grip® 5-Axis Vice 125, jaw width 125	96
48125-2522	Spare Jaws w/o holding teeth, for Makro·Grip® 125, jaw width 125	96
48125-7720	Spare Jaws for Makro·Grip® 5-Axis Vice 125, jaw width 77	96
48125-7722	Spare Jaws w/o holding teeth, for Makro·Grip® 125, jaw width 77	96

ITEM NO.	DESCRIPTION	PAGE
48155-77	Makro·Grip® 5-Axis Vice 125, jaw width 77, length 160 mm	92
48155-125	Makro·Grip® 5-Axis Vice 125, jaw width 125, length 160 mm	94
48155-TG2527	Centre Jaw 125 (27 mm) + Spindle length 164 mm	101
48160-77	Makro·Grip® 5-Axis Vice 77, jaw width 77, length 170 mm	88
48160-TG7717	Centre Jaw 77 (17 mm) + Spindle length 175 mm	100
48160-TG7727	Centre Jaw 77 (27 mm) + Spindle length 175 mm	100
48200-77	Makro·Grip® 5-Axis Vice 77, jaw width 77, length 200 mm	88
48200-TG7717	Centre Jaw 77 (17 mm) + Spindle length 215 mm	100
48200-TG7727	Centre Jaw 77 (27 mm) + Spindle length 215 mm	100
48205-77	Makro·Grip® 5-Axis Vice 125, jaw width 77, length 210 mm	92
48205-125	Makro·Grip® 5-Axis Vice 125, jaw width 125, length 210 mm	94
48205-TG2527	Centre Jaw 125 (27 mm) + Spindle length 214 mm	101
48255-125	Makro·Grip® 5-Axis Vice 125, jaw width 125, length 260 mm	94
48255-TG2527	Centre Jaw 125 (27 mm) + Spindle length 264 mm	101
48305-125	Makro·Grip® 5-Axis Vice 125, jaw width 125, length 310 mm	94
48305-TG2527	Centre Jaw 125 (27 mm) + Spindle length 314 mm	101
48355-125	Makro·Grip® 5-Axis Vice 125, jaw width 125, length 360 mm	94
48355-TG2527	Centre Jaw 125 (27 mm) + Spindle length 364 mm	101
4825164	Set Spindle (length 164 mm) + Centre Piece 125	97
4825214	Set Spindle (length 214 mm) + Centre Piece 125	97
4825264	Set Spindle (length 264 mm) + Centre Piece 125	97
4825314	Set Spindle (length 314 mm) + Centre Piece 125	97
4825364	Set Spindle (length 364 mm) + Centre Piece 125	97
4877100	Set Spindle (length 100 mm) + Centre Piece 77	91
4877135	Set Spindle (length 135 mm) + Centre Piece 77	91
4877175	Set Spindle (length 175 mm) + Centre Piece 77	91
4877215	Set Spindle (length 215 mm) + Centre Piece 77	91
49010-77	Profilo 77, length 102 mm	118
49040-77	Profilo 77, length 130 mm	118
49050-125	Profilo 125, length 160 mm	120
49077	Base Jaws Profilo 77	90, 119
49080-77	Profilo 77, length 170 mm	118
49080-TG77	Profilo Centre Base Jaw 77 + Spindle length 175 mm	119
49100-125	Profilo 125, length 210 mm	120
49100-TG125	Profilo Centre Base Jaw 125 + Spindle length 214 mm	121
49120-77	Profilo 77, length 210 mm	118
49120-TG77	Profilo Centre Base Jaw 77 + Spindle length 215 mm	119
49125	Base Jaws Profilo 125	96, 121
49150-125	Profilo 125, length 260 mm	120
49150-TG125	Profilo Centre Base Jaw 125 + Spindle length 264 mm	121
49200-125	Profilo 125, length 310 mm	120
49200-TG125	Profilo Centre Base Jaw 125 + Spindle length 314 mm	121
49250-125	Profilo 125, length 360 mm	120
49250-TG125	Profilo Centre Base Jaw 125 + Spindle length 364 mm	121
49258	Profilo 125 Add-on Jaw, steel	121
49259	Profilo 125 Add-on Jaw, aluminium	121
49778	Profilo 77 Add-on Jaws, steel	119
49779	Profilo 77 Add-on Jaws, aluminium	119
65191-04	Bushing for alignment of Quick·Point® plates Ø 12 × 12 mm, for M 8	57
65191-05	Bushing for alignment of Quick·Point® plates, Ø 16 × 15 mm, for M 10	57
70005	Quick·Tower Universal Base Plate, 396 × 396 × 27 mm, w/o bores	47
70006	Set mounting bores in Quick·Tower Base Plate	47
70008	Quick·Tower universal Base Plate, 446 × 446 × 27 mm, with bores	47
70263	Quick·Point® 52, 3-Face Tombstone	42
70264	Quick·Point® 52, 4-Face Tombstone	43
70650	Quick·Tower Base, height 668 mm	46
70850	Quick·Tower Base, height 860 mm	46
75600	Quick·Tower® 52 Grid Plate, 104 × 104 × 27 mm, with bores for Quick·Tower	16, 42, 48
75710	Quick·Point® 96 Grid Plate, 192 × 192 × 27 mm, with bores for Quick·Tower	17, 49

Icon Description

To simplify specifications we use these icons to highlight technical information and the compatibility of the products:

Grid system:
Zero-point pitch

Clamping stud size:
Diameter of the clamping studs

Quick-Lock:
The fast actuation system can be attached

Vice size:
Width of vice

Torque:
Maximum allowed torque

Clamping force:
Clamping force at maximum torque

Centring accuracy:
Centring tolerance of vices

Mounting bores:
Individual mounting bores and keyways are possible

Automatable:
Automation interface included

The following icons symbolise that on the respective catalogue page, interactive content can be called up with the **LANG App:**

Video

Slideshow

Interactive Model

simple.
gripping.
future

Imprint

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